TERRAZZO

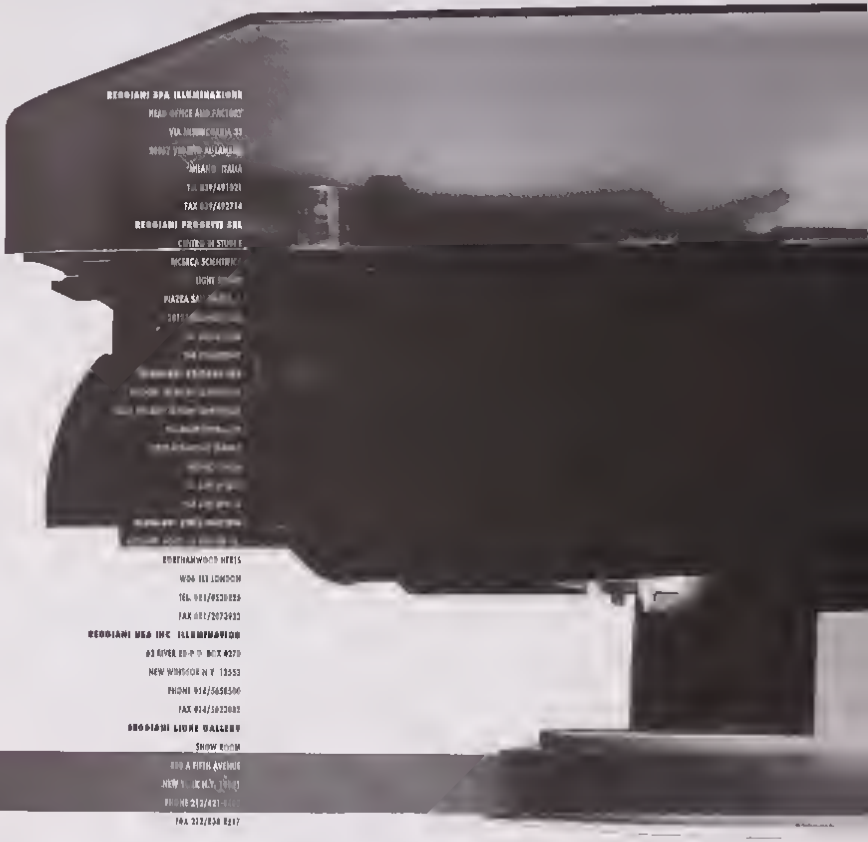
RAINBOW

F R I C S

PETER L HOBERGH

GIORGIO ARMANI

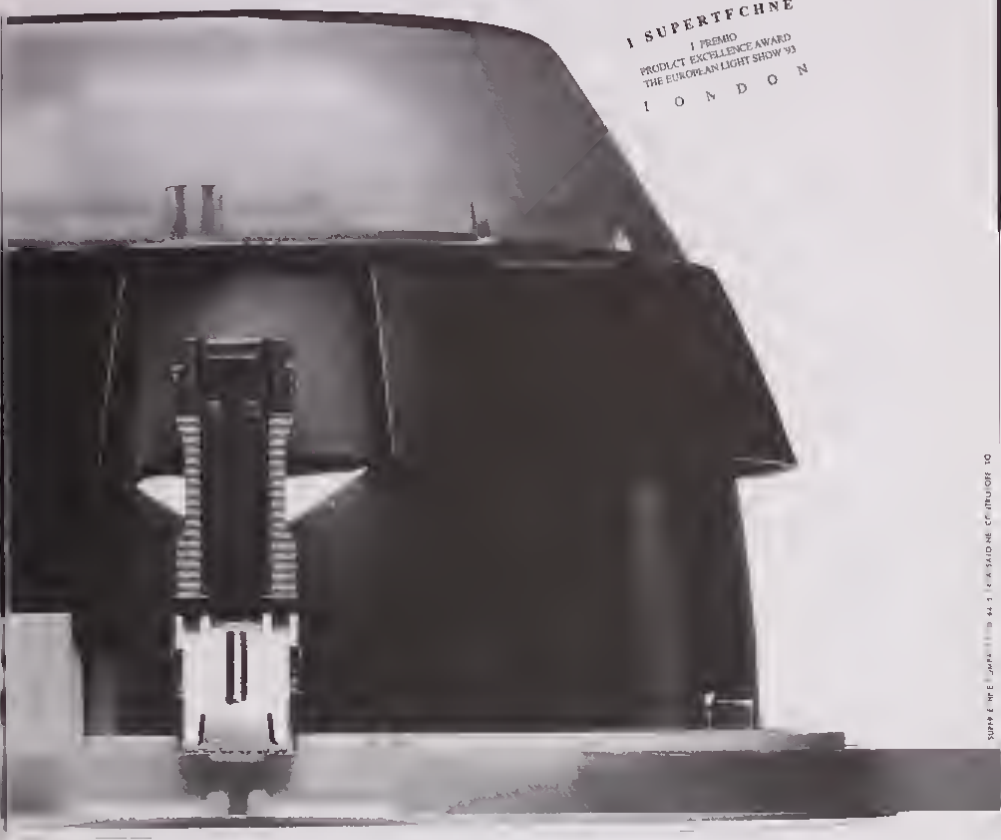
LUCE



REGGIANI

ORIGINE DI LUCE

REGGIANI ORIGINE DI LUCE



I SUPERTECHNE

I PREMIO
PRODUCT EXCELLENCE AWARD
THE EUROPEAN LIGHT SHOW '93
L O N D O N

I SUPERTECHNE BY REGGIANI
DESIGNER FABIO REGGIANI

SERIE DI APPARECCHI DI ILLUMINAZIONE
DA INCASSO **COMPACT E COMFORT,**
DI ALLUMINIO PRESSOFUSO

PER **GLI PUNTI LUMINOSI:**
ALOGENURI METALLICI VAPORI DI SODIO
ALOGENI FLUORESCENTI COMPATTE

POSSIBILITÀ DI LUCE DI EMERGENZA
GRADO DI PROTEZIONE IP 43
IDONEITÀ DI INSTALLAZIONE *F*

To be Great. A Good Reason to Grow.

APET LAMINATI

28 TABLES
zanotta

cappellini

Aries by Setsese Associati

The new line of low-voltage spots combines advanced technology with the ultimate in design and power of variation. In the case of the track models for mains power operation, the transformer is incorporated in the square luminaire shaft. The choice of light heads offers scope for creativity in shape and colour

ZUMTOBEL

olivetti

F H I L O S

ALESSI

Roy Lichtenstein, Painter, on Louis 20 Design Philippe Starck Chairs, tables office furniture systems from Vitra For further information call 02/805 46 20 (Vitra Italia) or ++41 61/901 25 56 (Vitra International Basel) for all other countries

vitra.

TERRAZZO

Terrazzo
a biannual publication on architecture and design

Editor and Publisher
Barbara Radice

Art Director
Christoph Radl

Production Director
Anna Wagner

Editorial Consultants
Gini Alhadeff
Christina Bischofberger
Santi Caleca
Jodie Evans
Fumiko Itoh
Daniela Morera
Daniel Wolf

Editorial Secretary
Caterina Cannizzaro

Advertising Consultant
Ambrogio Borsani

Business Consultant
Raffaello Barbieri

Translations
Rodney Stringer

The editor wishes to thank
Rosanna Armani
Albrecht Bangert
Fabio Bellotti
Christina Bischofberger
Intel
James Irvine
David Kelley
Leonard Koren
Julius Lengert
Shack Mihara
Xavier Mariscal
Max Palevsky
Marco Pogliani
Herbert H. Schultes
Siemens

special thanks to Ettore Sottsass

Typesetting by Grafica Milano snc
Color separations by Fotolito Farini
Printed in Italy by Nava Web spa

Terrazzo is published by Terrazzo srl Foro Buonaparte 54 20121 Milano, Italy
Distribution in the United States and Canada by Rizzoli International Publications Inc.,
300 Park Av South, New York, N Y 10010 tel (212) 3873400, fax (212) 3873636 ISBN 0-8478-5726-3
Distribution in the United Kingdom by Rizzoli International Publications Inc, c/o Rabbits Distribution Service
Star Road, Partridge Green W Sussex RH13 8 LD, England tel. (0403) 710971, fax (0403) 711143 ISBN 0 8478 5726 3
Distribution in Italy France and Spain by Logos Impex srl
Via Curtatone 5/F 41010 S Damaso (Modena) tel (059) 280264 280310, fax (059) 281687 ISBN 88 7940 012 6
Distribution in Germany Switzerland Austria and Holland by Bangert Verlag,
Peter-Paul Althausstrasse 9/F D 80805 Munich, tel/fax (089) 36190370 ISBN 3 925560 28 9
Distribution in Japan by U P S. Ltd
Kenkyu sha building, 9 Kanda Surugadai 2 Chome Chiyoda Ku Tokyo, tel (03) 3294541 fax (03) 32933484
Distribution in Hong Kong and Singapore by Sound Factory
Rm. 112 1/F Universal Tower 16-28 Kue Wah St. North Point H.K. tel. (852) 5714592, fax (852) 5247403

All editorial mail should be forwarded to Terrazzo Editorial Office,
Via Fontecchio 19 20121 Milano, tel. (02) 861319 fax (02) 809596
Terrazzo cannot be responsible for unsolicited material.

Copyright © 1993 by Terrazzo srl All rights reserved
Reproduction in whole or in part without written permission is prohibited
Autorizzazione del Tribunale di Milano n. 490 del 22 Luglio 1988

CONTENTS

18
EDITOR'S NOTE
by Barbara Radice

21
EUROPE
Siemens on technology
INTERVIEW WITH JULIUS LENGERT
photographs by Santi Caleca

29
JULIUS LENGERT
The disappearance of objects

30
EUROPE ON TECHNOLOGY
they design
photographs by Santi Caleca

61
JAPAN ON TECHNOLOGY
they say

67
USA ON TECHNOLOGY
they say

73
XAVIER MARISCAL
El futuro che viene
ON TECHNOLOGY

81
CITIZEN OFFICE
a project for Vitra
ideas and Notes by
Andrea Branzi, Michele de Lucchi, Ettore Sottsass
Diagrams and coordination by James Irvine
photographs by Santi Caleca

105
PLANS (8)
research by Beppe Caturegli and Giovannella Formica
photographs by Christina Bischofberger

Andrea Branzi 1993

EDITOR'S NOTE

When we decided to dedicate an issue to technology we hadn't yet planned how to deal with the subject. We found later that the theme was very slippery. What is technology? One should really be talking about different kinds of technologies, i.e. fiber optics technology, communication technology, medical technology, microelectronics, and so on. However people often talk about "technology", attributing to the word a more general meaning, as if technology were not just a skill, an ability to achieve practical results in one field or another, but something which does not translate only technically but culturally into a vision of the world, a world of the future. It is this notion of technology that we tried to investigate.

We interviewed many prominent people directly involved with technology: managers and scientists, technocrats and engineers in Europe, the United States and Japan, yet no one could offer a comprehensive statement on its global, cultural, future implications.
Some showed enthusiasm, others were more suspicious or even scared. But the *Weltanschauung* of technology remained vague, conveying the idea that we are in fact using instruments and possibilities without quite knowing where we are heading and — more important — with no plan, no software. It's paradoxical but the immense store of technological notions and skills, the same store that actually produces more and more sophisticated software, seems to operate with no software behind it.
Many of the people interviewed spoke generally about technology improving living standards. But nobody defined *what* are good standards of living and in respect to what, nor the direction of the improvement. Doctor Julius Lengert, not by chance a cultural anthropologist, outlined a more comprehensive view of the situation, stating at the end that one possible answer is that we should learn to ask questions.

The word technology usually conveys a strong sense of reliability, but since scientists and specialists admit that we are far from having control over technology, I presume that reliability should really read as possibilities. And in fact the many different technologies offer a panorama of vast possibilities. Since experimentation is not only necessary but inevitable, it needs a goal or an image to guide it which at the moment does not seem to exist.
Most experimentation is at the service of industry, which wants and needs mainly to sell. Industry, generally speaking, lives in a sort of schizophrenic situation. It behaves as if it were something separate from culture, while being a culture itself in a profound sense of the word and, so to speak, a very totalitarian one at that. To my knowledge, there are no national or supranational bodies studying or investigating the problems raised by technology, dedicated to establishing priorities, indicating directions, considering possibilities. A team of such people should include designers, philosophers, poets, psychologists, people not too specialized in the field, but with the capacity to outline the nature of the problems involved, to ask questions and widen perspectives.
We now have on one side industry + marketing people + advertising people, and on the other general consumers and buyers who are also strictly part of the culture of industry. A third group, which is not really separate, because they are also buyers and consumers, are what we might generally call artists and thinkers. They work independently, in and yet out of the real culture, which is industry. More often than not they are considered dangerous, or a serious nuisance. They may achieve fame and even money but have no decision-making power over fundamental matters. Yet they could at this point make a most important contribution. They could help design a world wide cultural concept of technology. They are specialists in a different kind of technology: that of imagination.
Our existence, and the existence of technology, cannot be reduced to rational problems, comfort, speed of communication, better standards of living.
The question is: where are the people that dream?

I want to thank warmly all the people who helped to put together this issue and in particular Siemens and Doctor Herbert H. Schultes, who allowed us to make close contact with their scientists and research departments. I also want to thank the designers who devoted so much of their time to the creation of special new projects which give a practical and touchable, albeit limited, idea of what technology could become.

Barbara Radice

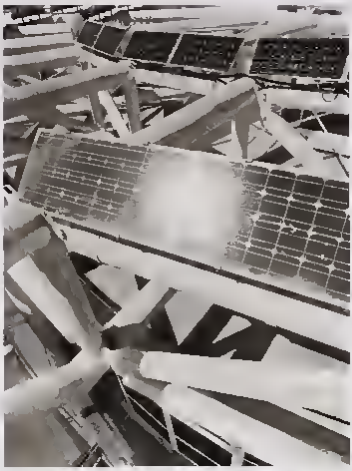
EUROPE
Siemens on technology
INTERVIEW WITH JULIUS LENGERT

You often spoke of the predominance of technical thinking in our culture and of the "nightmare of a onedimensional purely technical and functionally oriented world" Can you explain this concept?

Human beings consist of body, soul and spirit. This fact, although well known, is always being forgotten. Every cultural concept, every proposal for society, even every design put forward by man must take this fact, this 'human reality,' into account. One must take into account the fact that human understanding and behavior don't operate only on a rational level. Humans also experience things emotionally, comprehend them intuitively.

Of course the temptation is to simplify the situation in discussing it – for the complexity of human nature tends to complicate everything in which humans are involved.

If one overlooks certain aspects and reduces 'human reality' to a single dimension, everything becomes much easier. Our age has reduced man to a pure rational being. This 'shrunken man' is the typical representative of modern society.



detail of the Art Sculpture by [illegible]

If one only accepts a certain segment of reality as true and binding, ignoring the rest, one is treading on thin ideological ice. Such distortions of reality perception occur to varying degrees. They range from the whims and idees fixes of crazy men and single-track minds, to misperceptions elevated to the status of systems by system-addicted ideologues. Such systems always culminate in the annihilation of dissidents who are unwilling to subscribe to the ideology in question: either in the physical, concrete world or in the spiritual-psychological realm, one is pronounced a 'non person.' Such are the dangers of one-dimensionality. This is the nightmare to which I refer. Ideologies, furthermore, always result in the construction of a second reality, which is put into the place of the original reality and is then said to represent it. Yet when man loses his contact with 'real' reality, and seriously regards this second one as the truth, behavior becomes fundamentally irrational. This gives rise to dream worlds which may certainly function with material perfection but which don't furnish the individual with a spiritual orientation a real 'home'. Our technical civilisation excels at the construction of 'second realities.' This is the root of the phenomenon which Freud diagnosed as cultural malaise. The individual lives in such a system like a sleepwalker. Only in intermittent intervals of lucidity does he become aware of the pseudo, unreal nature of such a life but it's difficult to prevail as an individual against the overwhelming weight of social pressure.

The artistic form of expression for the revolt against one-dimensionality is Mannerism, when it is truly a 'gesture of desperation', this corresponds in literature to the grotesque and the theater of the absurd. These forms of expression have in common the indication of a characteristic phenomenon: that of the 'nonsense of the age' as a result of the loss of reality perception through self-imposed obstacles. Of course such perceptual disorders also lead to distortions of design and therefore to distortions in the quality of life. In today's world quantity dominates over quality. Everything is quantified, calculated, seen in terms of the analysis of costs and effect. The apex of this kind of one-dimensional perspective is the assertion that time is in itself a phenomenon which represents a quality, and that natural time: lifetime, historical time, rhythm, all amount to money – money, an element which is only comprehensible and valuable in quantitive terms.

The *principium primum* of our society is purpose-oriented rationalization, the economically justified

Under the roof of Siemens Pavilion Expo 1992 Seville

arrangement of means to an end. In spite of its enormous effectiveness on a behavioral level, this principle is in itself a *reductio ad absurdum*, if it's not construed within a more general context of meaning — which in our technological society it seldom is. Technology exhausting itself in rationalisation, has no answer to the question of sense. Everything is doable, therefore it's done, whether or not it is sensible to do it isn't at issue, as long as it is economically worthwhile.

In his sketch of a motorcycle nut, cabaret comic Helmut Qualtinger expressed this world view perfectly. "I dunno where in the world I'm going, but I'll get there a lot faster."

Today everybody speaks of technology, the development of technology, the design of technology. You being a cultural anthropologist, I would like to ask you to describe the culture of technology as it is now and if you believe there is one.

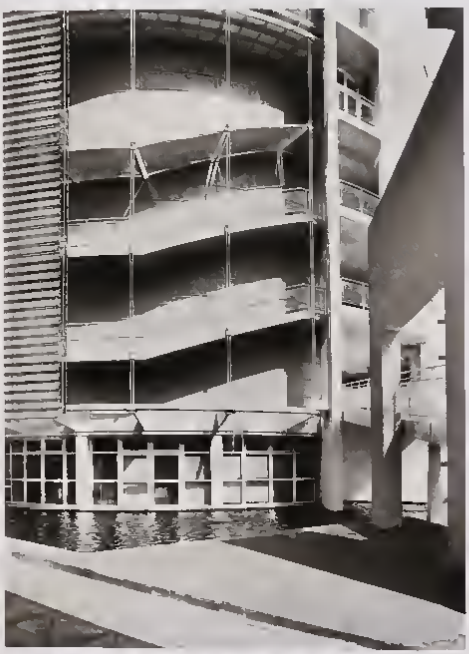
We are speaking, of course, of an industrial culture but we tend to lump together under this term manifestations of the Machine Age: the great assembly halls of the 1920s and 1930s, a certain kind of architecture: factories and office buildings, railway bridges or other similar industrial landscapes. But these are all symbolic values of a bygone age. The "aesthetic of the smokestack" has become obsolete. Today, smokestacks symbolize pollution. The values which they represented and which gave people of that age a sense of identity and orientation must today be conveyed by some other means.

The question is: OK, we have technology at our disposal, but what are we going to do with it and with what aim or social goal? What is the attitude of industry towards this problem?

The situation we have arrived at today, thanks to the emergence of modern electronics, can best be illustrated by an old Jewish joke: in traditional Judaism the Rabbi was not only a guide and counsellor in questions of faith and other religious matters, he was also the proper authority for all problems and questions connected with everyday life. Thus he was constantly being bombarded with all manner of more or less convoluted questions. Whenever he didn't have a ready answer, as was usually the case, he would ask the questioner for a few days to think the matter over.

One day, however, a Rabbi came into the Synagogue and said: "I've got an answer. Anybody got a question?"

As applied to our situation today this means that in many areas technology, thanks to modern electronics, can offer more solutions than we have problems. But this implies that the situation has fundamentally changed. Up to now the story was something like this: a customer had a problem, and technology sought and developed a solution to it. True, as technology grew more complex in our consumer society, every now and then



1 [illegible] Seville

discussions arose as a result of an increasingly skeptical attitude towards consumption as to whether this or that product was really necessary – an electric egg-cooker for example. But even so technology was faced with a concrete problem to solve: how to boil an ordinary chicken's egg with the least possible outlay of energy and machinery so that it could be relied upon to reach a specific consistency – hard, medium or soft-boiled. And technology found the answer to this problem.

Today things look quite different. Allegorically speaking, we can, with no trouble at all, cook any egg anywhere, at any time, in any manner and for any length of time. The only question is where the eggs are and where are the people who need an appliance like this and if they are willing to pay any money for it. The problem has shifted from developing know-how to the problem of knowing how to handle the know-how.

Without proper mastering of this handling problem a new danger arises, namely the danger of 'technological overkill' – I refer to the danger that the user is confronted with more technology than he's capable of understanding, handling and accepting.

Electronics, with its almost unlimited technical potential, has freed us from limits imposed by the laws of mechanics. Thinking in mechanistic terms is largely obsolete but the problem is that this fact does not appear to be fully recognized everywhere.

When developing new electronic equipment, most thinking still proceeds along mechanistic lines. This means that each new technical function, each new feature of an electronic device is accompanied by an additional control element on the control panel or that pushbutton controls are assigned several functions, or that functions are available when a combination of various buttons are pressed.

This means that the user is still subordinated and directed by technology and remains so even when the available technical options make this absolutely unnecessary, in the sense that problems concerning hardware could be solved by means of software.

This problem, which strictly speaking has its origin in "misconception," cannot be solved by the industrial designer alone. All he can do is perform cosmetic surgery which might remove the symptoms but not cure the illness.

What is necessary is a basic redirection of our thoughts. We must stop trying to improve and prolong existing systems and attempt instead to break new ground to arrive at new concepts and systems. We must devise a radically *new approach* to our problems.

An important prerequisite for this new approach is the re-opening of the dialog between the people on the technological side and the target group

In terms of information theory it is a problem of the right flow of information between sender and receiver as a communications problem Up to now the party to the dialog was the buyer who required or was meant to require technical facilities to solve his particular problems The outcome were buyer-oriented equipment and systems

However, the buyer was rarely identical with the operator of the equipment. Where buyer and operator were identical, as was the case in the medical field for example, it was a matter of highly qualified experts endowed with sufficient knowledge, motivation and ability to learn to operate complicated technological equipment correctly

In the course of the continued spread, some would say vulgarisation of communications technology, the use of products of this technology has shifted from specialists to widely diverging target groups, from doctors and engineers, for example to typists and untrained staff

This, in conjunction with changing public awareness vis-a-vis technology, means that the technical performance of equipment is not now the sole criterion for quality and acceptance The equipment must also be simple to operate and easy to handle and must blend in with its environment.

In order to ensure that this is the case, it is essential to orient the technical structure of the product towards the thoughts and experiences of the user the development of the product must be based upon Man s capabilities and limitations in perceiving and processing information

The question is not then simply one of technical feasibility but also of the effects on Man and his working environment. Acceptability research is thus an interdisciplinary exercise involving technical, organizational and human science methods

You wrote that "industrial culture has not yet developed symbols and values that people can identify with" Can you explain this and also I would like to know if in your opinion, leading technicians, engineers and managers are aware of this problem?

Culture is not by any means a high toned luxury Culture is the basis for the spiritual and material existence of a society Culture plays an orienting role It tells the individual who participates in it who he is, what he ought to do, how he ought to do it and why Culture gives the individual an identity, an answer to his questions about the meaning of existence

In order that its members have some kind of orientation, a culture needs certain values and these values must be conveyed in some form or other This is done by means of symbols – of aesthetic forms Aesthetics, therefore, have an orienting function and are an essential element of every culture There's a clear if subtle, link be-

Multivision [illegible] Seville

tween aesthetic and ethical positions, a point where the aesthetic and the ethical overlap in symbols for example Symbols are visual abbreviations They serve to orient, identify and communicate

In today's modern technological civilization, such symbolizing hasn't — hasn't yet, at least — sufficiently taken place

Unfortunately the protagonists of our industrial society — managers, engineers, bankers and middlemen — are perhaps the people least equipped to furnish these means They are at the center of events and devote all their energy and time to keeping the industrial system running and moving forward. They get their sense of identity from these daily activities and, precisely because their lack of distance and their involvement, don't, as a rule, perceive the impoverishment of symbols, the emotional and spiritual deficit in our industrial society

Furthermore they are not trained to create new symbols and to do so is not their task.

Who are the people likely to help find solutions and how? Who's going to design the new culture?

I can tell you where the solution will not come from. It will not come from heaven and it will not come from industry as a whole It will come from people individuals in all fields, industry as well as the other fields which are related to it. They will stand up and make clear that this is not the right thing, not the right way There are a lot of people even inside the system who are feeling uneasy They are doing their jobs but they do not believe in them This cultural service has to be performed by others, for instance designers, who take it upon themselves to take into account man's emotional needs with a holistic approach to their work. And of course architects, who, after all, create and shape the thicket of cities" where we live, are also responsible as are writers, poets, artists and, last but not least, philosophers.

Since industry holds all the economic power and is mainly interested in profit and since there are, to my knowledge, no investments made anywhere to investigate these matters, how can we expect the situation to change?

Every system is conceived of as an autonomous entity, none bears within itself the key to its own solution Societal systems, however, are not abstract entities but are represented and endured by thinking, feeling human beings, capable of insight. It is this fact that gives one reason to hope As members of a freethinking, democratically organized culture, certainly we can no longer call on the people in charge ' on some kind of custodians of culture, whether individuals or institutions, rather, everyone of us is confronted with the task of aiding to bring about the necessary changes There won't be a *deus ex machina* Every individual has to be effective and bring about change in whatever sphere he's capable of doing so, for every act of every individual counts Everyone who refuses to bow to some so-called "factual compulsion" laid down by burocracy or technology (which usually has nothing to do with actual facts), following, instead, his own common sense, everyone who acts against irrationality and absurdity, everyone who takes a stand against 'official arrogance, against the acts of a burocracy run wild, which calls itself autonomous, everyone who protests against artacks against human dignity, everyone who visibly demonstrates his will to walk upright', every iota, finally, of music, beauty or playfullness which people bring to the world helps to lessen the emotional deficit so evident in our society Individuals, each in their own way, are free and able to do so

Within Siemens people often speak of integrated systems and integrated networks Why do you think this is a desirable solution? Don't you think it dangerous to dream of a system integrating everything?

The integration of systems is important, even essential, because individual systems have reached the limits of their efficiency Take, for example, traffic, which has brought itself to a standstill hospitals, which make the patients sick, package vacations supposed to be relaxing, which stress, even exhaust participants

With microelectronics it's possible, by means of highly sensitive sensors, to integrate technical systems, rendering them more adaptable and ultimately giving them a higher performance

Of course here again the question of the sense of it all rears its head. In theory one could certainly network everything with everything else but that would be nonsense, indeed, in light of the total control this would give over everything, dangerous nonsense the negative utopia of Huxley's *Brave New World* Obviously one wants to link together only those things that somehow belong together and which, when networked, are synergistic

Such thoughts of networking should not remain limited only to technological systems The basic principle of networking systems is a model of thinking, a fundamental attitude which relates to everything and can be applied to every area of our society science, politics, medicine, religion, art, urban planning, etc When, for example a firm like Siemens takes into account, in its design, not only a product's function but also the sense behind it, then the two systems are actually being linked together that of technology organization and that of philosophy

Not only technical systems but every other system of thought and experience should be thus networked — although in this context, I find the word "network disturbing I'd rather replace it with the word "integrate', which comes nearer to addressing the natural principle at work. Nature is, after all, the primary model we have, nature is also a master at networking systems, without creating any sort of nonsense in the process

On the design of microelectronics
The disappearance of objects

Microelectronics – the emphasis is on *micro* – has diminished and limited the material side of technical functions. That is to say, products are getting smaller all the time and less objectified. This miniaturizing – or, to express it more strongly, disappearance – of objects is the basic problem.

For products are not only becoming smaller and smaller in relation to their technical capacity, they're also becoming increasingly abstract in their technical function, ever less visible and less self-evident. They're becoming increasingly incomprehensible, in the truest sense of the word.

This is the negative aspect, viewed from the standpoint of the traditional design attitude which holds that objects should express something through their design, that objects ought to convey a meaning. A 'black box' says nothing to an observer or user of a product.

The positive side is that, as form frees itself from function, the designer is left with virtually bound less room for creativity.

Yet how can a designer make use of this new freedom, with all its possibilities? This is the key question of design today.

In the long run, no designer or manufacturer is going to be able to avoid this question.

As of yet, no convincing solution has been put forward. Neither the Germans nor the Italians nor the Japanese nor the Americans have, for all their technical innovations, come up with a concept in this area.

And yet this isn't a question of the technology of tomorrow or of a still more distant future, but of the technology of today. It's not a matter of utopian visions, but of real, existing design, not a matter of the way things might someday be, but of how they actually should be already.

Of course, there's no patented answer to these questions, but it's certainly possible, in my opinion, to outline the basic direction in which future developments have to and will proceed.

Objects, of course, aren't going to disappear, that's a somewhat unclear formulation of the problem. If objects actually were to disappear, the problem of how to design them would also vanish.

What is disappearing is the recognizable content, the semantic information, which has hitherto served as a point of orientation for the design of aesthetic information.

What will remain, until objects have completely dematerialized and everything takes place only on the level of appearance, of virtual reality (this is the *next* level of development in the field of design), is the surface of objects, which is often only the user surface. And this surface has to be designed.

This, however, requires a rethinking of fundamental design goals.

In the future, the designer's task won't be to make visible the function and content of an object, but rather to create an image for a product by creating an optimal design for the user surface.

Today, it's taken for granted that virtually every name-brand product on the market will be able to function technically without any problem. In ranking products which function at the highest technical level and establishing prices, it's the product or brand name image which is a decisive purchasing factor.

The product image should enhance the brand name, and vice versa. For the designer, designing a surface involves considerations ranging from staging, attractiveness, media-effective marketability, signals given by individual details and fantasy all the way through to a sense of humor.

Purists and moralists would be correct in terming this a world based on appearances – but it must be recognized that this is the world *in* which and *from* which we live. If form is no longer able to grow out of mechanical function, it must proceed along a new path.

Julius Lengert

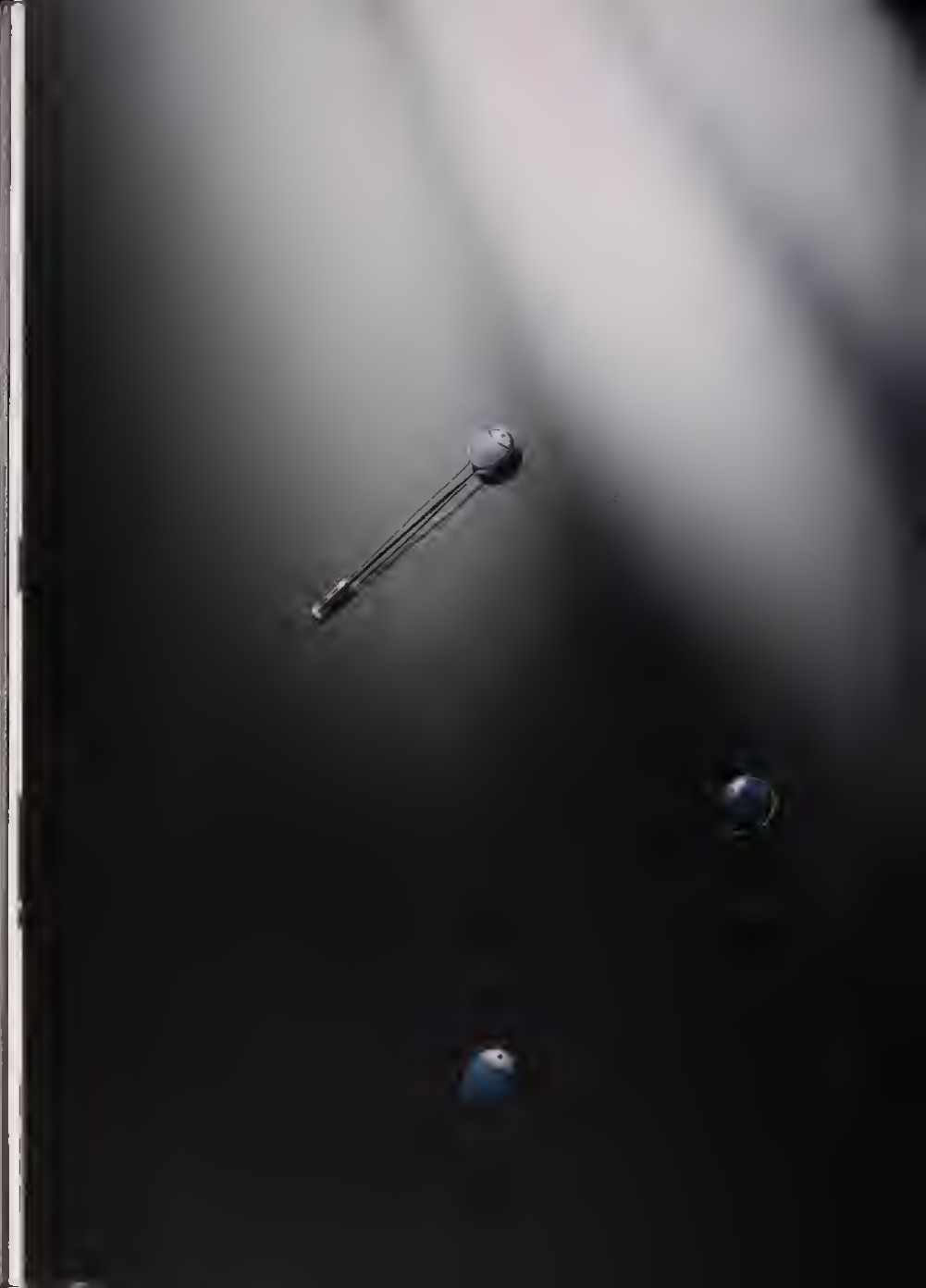
EUROPE ON TECHNOLOGY
they design

photographs by Sauli Caleca

Electronic railway ticket
Michael Lane

F1
F2
F3
F4
F5
PASTE
LABEL
ESC
TAB
CTRL
Q
W
E
R
Y
A
S
D
V
X
Z

Storybook
Stefan Sagmeister



Dan Knopf
Stefanie Kalasnik

Rhythm
Gerhard Lentz

The 3-D simulator
Sandra Guilloux

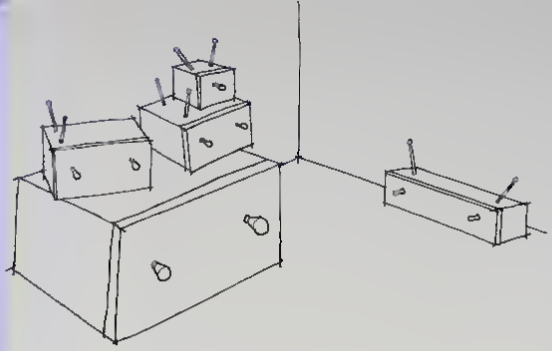
Carré Tuteghaus
Tönis Kõiv

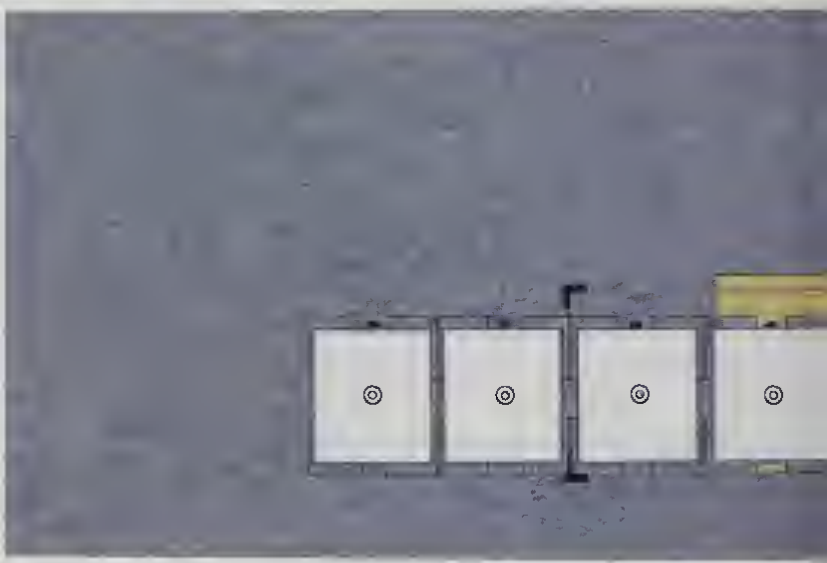
Mens
Memorable Design

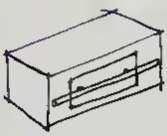
The 3-D-communicator
Michael Lanz

Within the transition of the industrial to an informed s[illegible] reached the limits [illegible] Video conference do not present a satisfying substitute [illegible] traffic density, and waste [illegible] it is necessary to create a possibility to diminish [illegible] with improvements [illegible]

The 3-D communicator [illegible] which enables us [illegible] people as if they were physically present although they may be in fact thousand miles away. It is not meant to [illegible] The 3-D communicator is supposed to be used only when these communication instruments become [illegible]



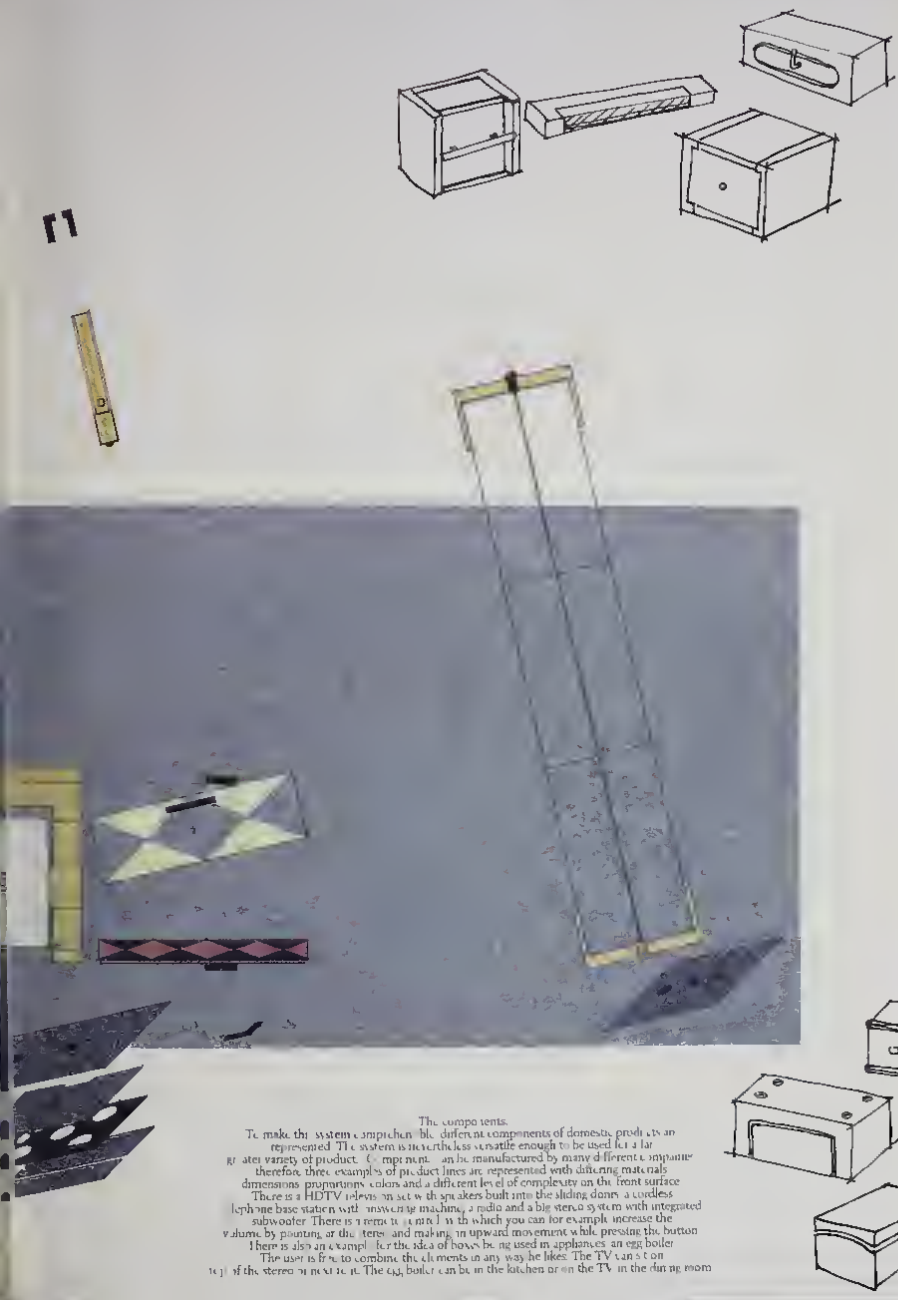




The box
Andreas Rößner

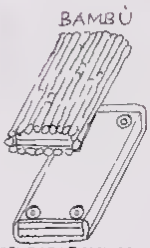
The system

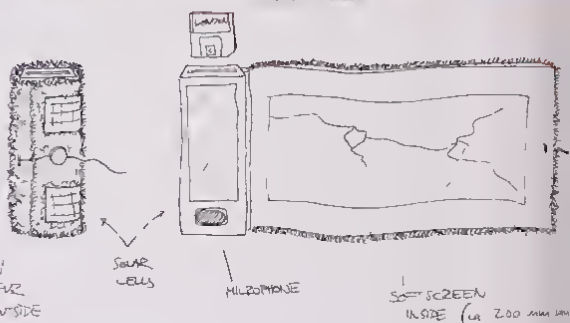
Every box by itself is a unit with connector an I bus electronic built into its walls. Every manufacturer can make his own individual boxes made of different materials in different proportions and sizes. The only un bang standard is the connector and electro na "language" so to speak, and the idea of having a simple, clean box with indi dual front plates and only the most important funct ons acces ible from the outside. More functions can be used after opening the box. The boxes can be stacked combined, and connected with each other simply by setting them on top or next to each other. They are housings for electronic components. These can be changed whenever there is an upgrade, when for example the phone standard is changed from analog to digital. The circuitboard is pulled out, and a new improved one is inserted. You keep the housing

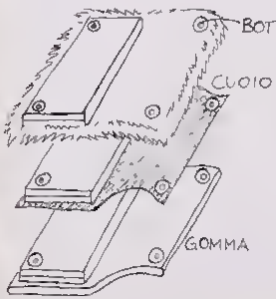


The components.
To make this system compatible different components of domestic products are represented. The system is nevertheless versatile enough to be used for a far greater variety of product. Components can be manufactured by many different companies therefore, three examples of product lines are represented with differing materials dimensions proportions colors and a different level of complexity on the front surface.
There is a HDTV television set with speakers built into the sliding doors, a cordless telephone base station with answering machine, a radio and a big stereo system with integrated subwoofer. There is a remote control with which you can for example increase the volume by pointing at the stereo and making an upward movement while pressing the button. There is also an example for the idea of boxes being used in appliances an egg boiler.
The user is free to combine the elements in any way he likes. The TV can stand on top of the stereo or next to it. The egg boiler can be in the kitchen or on the TV in the dining room.

Solar powered SOS telephone
James Irvine







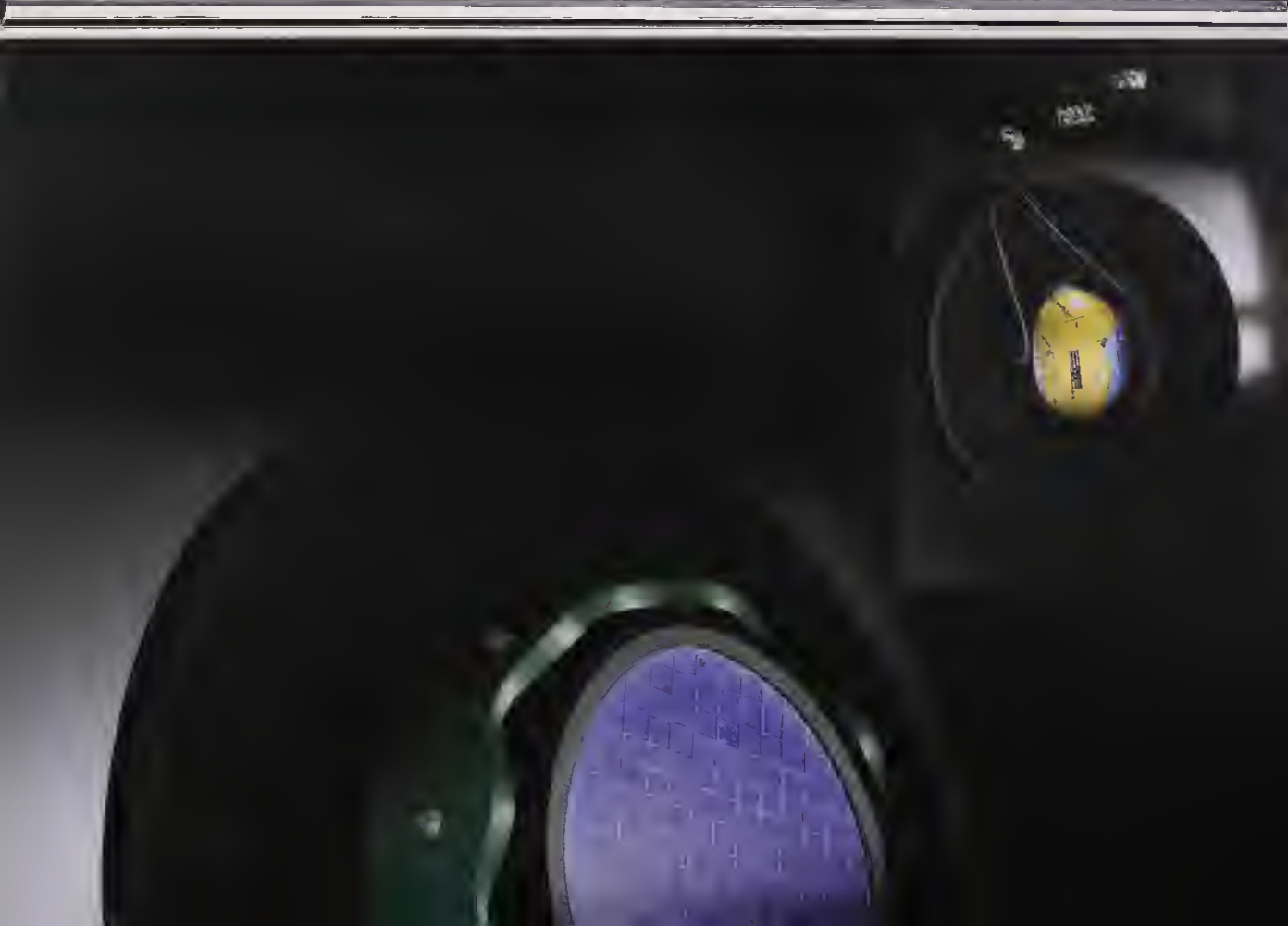
The city guide
Lohse, Leonhardt, Strobel

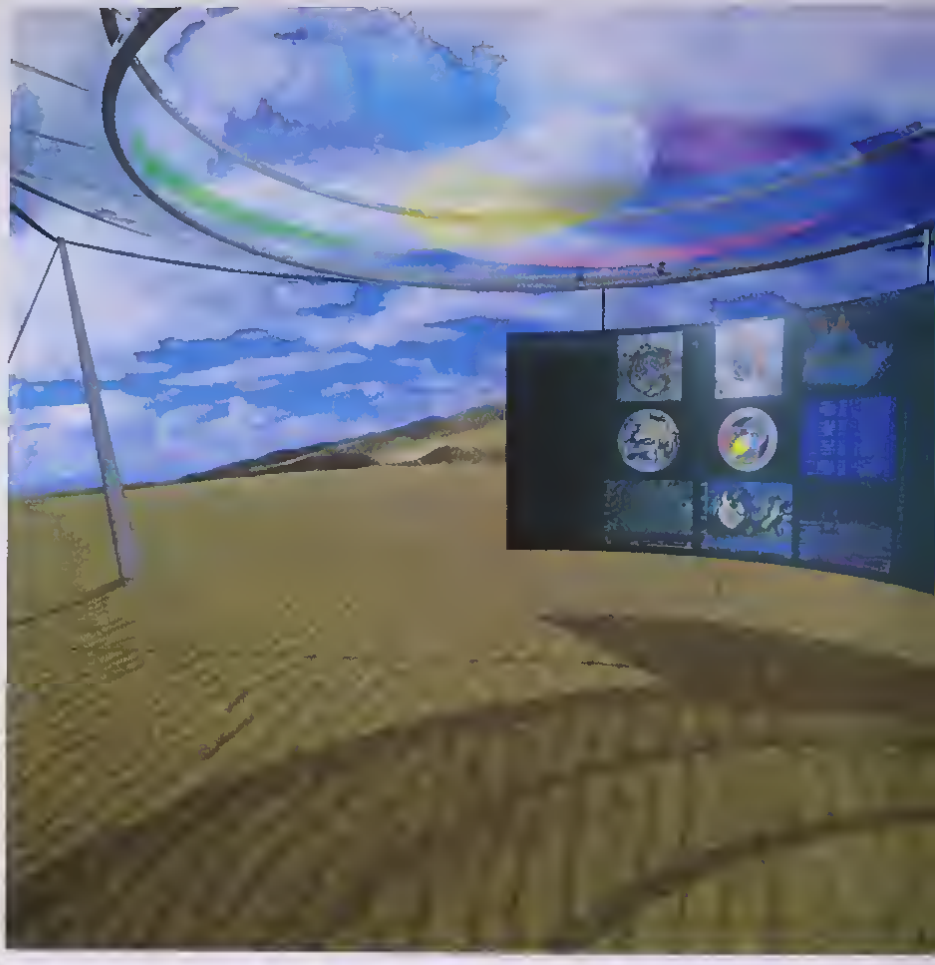
This concept is a system which functions as a stationary object and an object which fits into your pocket.
This part of the system contains all the necessary information about the city you visit. A coin-wide card-slot downloads the best way to the place of your choice. If the user moves to another city he has the possibility to up-date his city guide or to get a print out from one of the info-towers that are spread all over the city.

The voyage companion
Lohse, Leonhardt, Strobel

This concept is a system for navigation and travel support supposed to work all over the planet. It works with the energy of photovoltaic systems. A well-devised software combines voice control, touchscreen, pentop-system so the product can be controlled without a keyboard.

By the aid of the existing satellite system it calculates your location your aim and [illegible] une
It contains the whole world mapped to be shown on the screen it contains an electron dictionary system
so it can help to translate foreign languages A disc drive enables different information or up dates.





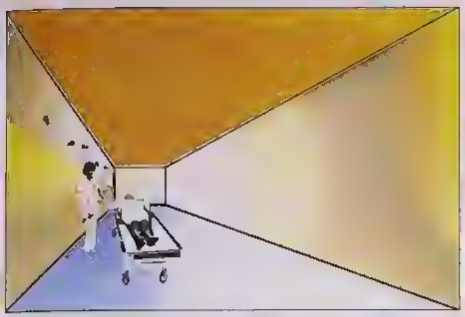
Information System
Stephan Apetauer

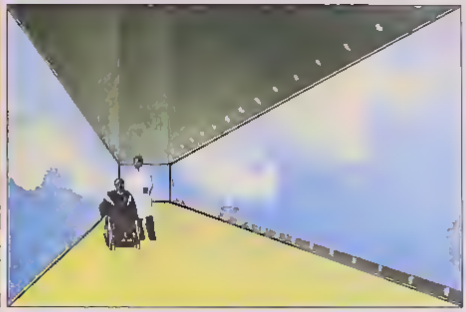
The three basic systems of society [illegible] design is visualized by a simple dynamic sign. This sign consists of two rings and three disks which show the status of each system and their relations to each other (sketch 1). The status of each system is shown in the outer ring (orange green, violet) the interrelations of the systems on the inner ring (first grade overlapping cyan magenta yellow second grade overlapping white)

Sketch 1 the sign is a symbol hanging above a city showing the holistic state of the three systems. The suspension on the three sides is used for data transfer to or from an intelligent network. Electronic data evaluation is carried out in the outer ring, the dynamic sign is projected by the two inner rings. Detailed information is accessible by individual broadcast systems (TV radio..) which are connected with the intelligent network.

Sketch 2 the sign is positioned anywhere it is a public place for information exchange Information is boldly displayed and is accessible in detail by an interactive multimedia wall Here the sign is part of the intelligent user interface

Sketch 3 the sign is positioned within an urban context. It is part of a public building. Its function is equivalent to a new form of library or university. Man whose cognitive capabilities are naturally limited, is more and more unable to manage the complexity and quantity of today s problems as well as the flood of information. The purpose of this building is to make knowledge and information accessible by intelligent systems the stress hereby is on quality





Medical Technology
Annke Osthues

Medical devices from Siemens are primarily oriented towards technical efficiency and optimal usability for personnel. How to take the patient as a target group for medical technology the project gives a new starting point. For the well being of the patient it is important to give these large devices a positive appearance as well as to give the patient a better orientation in the unfamiliar environment of the hospital. The example of the hospital corridor explains how atmosphere can be created. Corridors in hospitals are used as traffic ways and therefore cannot be furnished. Like secondary rooms, within the hospital architecture they often don't get daylight. By using coloured light or light projections these rooms get an atmosphere without interfering with their use as traffic ways. The corridors could be turned back into a neutral state by switching off the coloured light. The second part of the study shows how to improve the atmosphere surrounding the magnet resonance imaging (MRI). For instance the dominating machine character of the equipment should be eliminated and substituted by different, softer forms. Colourings and light should have a soothing, gentle aura. As medical devices are often frightening, the patient should have very good visual contact with the medical staff even inside the tunnel (for instance by means of mirrors). The operating noise of the devices should be as soft and pleasant as possible. During special treatments music can contribute to a relaxing atmosphere. The drawings show how by using colour or by using textures the form of the MRI can be dissolved or emphasized.

Thus there was in my dreams a share of land though not too much, with sloping edges, and the gush of running water near the farm and a patch of wood. In addition More and better have the gods done.

Horace, *Satires II 6*

I maintain there are two sources of sense in science. On one hand pragmatic interest what is useful to man makes sense. On the other a much more hidden source of sense of a subterranean and fundamentally oneiric kind. Here the sense is not immediately visible it is expressed through capacities for organization of given facts which appear only later, like the sense of a theorem in mathematics.

Rene Thom, *Science and Sense*

Life revolves round man and thinks and dancing weaves for him the relations which he with difficulty and very much less kaleidoscopically heaps up when relying on reason.

Robert Musil, *The Man without Quality, 90*

So truth is not a crystal that can be put in a pocket, but a boundless liquid that one falls into.

Musil, *The Man without Quality, 110*

The guiding concept of cybernetics, the concept of information, is broad enough to be able one day to subject the historical sciences of the spirit to the claims of cybernetics. This will be made all the more easy by the fact that man's relationship today with historical tradition is visibly transferred into a mere need for information. But in the measure in which man still understands himself as a free historical being, he will succeed in not handing over the determination of himself to the cybernetic way of thinking. From the beginning, cybernetics itself admits that it is confronted here by thorny questions. Nevertheless it maintains that it can substantially deal with them, and it preliminarily regards man as a "disturbance factor" in cybernetic calculation. With all that cybernetics can already be sure of its own thing, namely of calculating everything that is in the terms of a controlled process, since the idea arises of determing man's freedom as something planned, in other words controllable. Because for industrial society too, only cybernetics seems to allow man to live in a technical world that is imposing itself ever more decisively.

Martin Heidegger, *Philosophy and Cybernetics*

The invisible relationship is stronger than the visible one.

Heraclitus, 9

May wealth never abandon you, men of Ephesus, so that you can (openly) prove your wickedness.

Heraclitus, *106*

Government of the world begins in ourselves. It is not the sincere people that govern the world, but it is not the insincere people either. It is those who fabricate in themselves a real sincerity with artificial and automatic means. That sincerity gives them their strength, and shines more brightly than the less false sincerity of others. Knowing how to illude oneself is the first quality of a statesman. Only poets and philosophers can have a practical view of the world, because only they are permitted not to have illusions.

Fernando Pessoa, *Il libro dell'Inquietudine, 202 (467)*

JAPAN ON TECHNOLOGY
they say

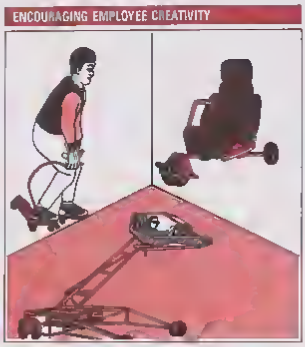
Shuji Miyazaki
Director of Inspection and Design Policy, Ministry of International Trade and Industry, Japan

If suddenly someone says technology, what do you think of and what image comes to your mind?
Since my responsibility in this ministry is design, I immediately think about the relationship between design and technology and how the two relate to each other
What is technology to you in respect to culture?
Technology is supposed to play a role improving the quality of life or the living standards of people, making their life easier and wider in scope
Do you think there is a culture of technology? Can you describe it, how does it look and why?
It is not easy to say if a culture or a civilization of technology exists or where it exists and how but again I'll take a point of view from a design related field. Take for instance the Sony walkman. Sony announced they made a hundred million of them. That was a piece of technology but at the same time that tiny cassette introduced a completely new life-style all over the world: music only for you and wherever you are. At the same time I'm doubtful that abroad this is taken as a new life-style introduced by Japan
In your country what emphasis do you put on technology development? For instance, talking about walkman, suppose they invest 10 to produce the walkman, how much did they invest to produce the music that went into the walkman? What is the relationship between what a nation is investing in technology and what it invests in nourishing this technology, in giving it a goal, a social destiny?
If someone wears an Italian silk tie, everybody pays attention to the fact that it is Italian silk and Italian design. They think beyond the tie to Italian culture or the way they use colors. The reason why I spoke about the walkman is that when someone sees a walkman, they don't think beyond the product. At the moment Japanese people don't think they can teach or educate foreigners to be aware of contemporary Japanese culture
Can you give me some percentages and data about investments in Japan?
I don't have updated information and I'm not the person to answer your question. But ten years ago I was in the department of Science and Technology of this Ministry. In the early eighties research was aimed mainly at the industry applied use of technology, at high profit products. At the time people used to say that the basics of technology came from the West and that Japanese where only good at the application of it. So people started to think that Japan should invest in basic research even if it doesn't immediately make a profit and the government made a guideline in this sense to universities and industries. There was a sort of government plan to finance specific types of research like bio-technology, new materials, advanced computers but still the financial support to this research is less than 1% of the whole Japanese research budget. The government is worrying about next generation technology but there's no guideline on which way to go.
What about software?
The government is saying that the quality of software should improve, and not software for computers but the software of music for instance, general software, but it gives no indications. Sometimes it is criticized by artists and creative people. They think there should be a plan to improve the software of Japanese culture
In America there's a trend where they say, OK machines are already very powerful, but what do we do with the machines if we are not ready with the software that may prepare the use of these machines. Do you have this problem in Japan too?
This is a very important issue in Japan too, that's why I put the example of the walkman. The machine is perfect but the music is far behind. This is a big issue for the Japanese nation from now on. There are for instance some divisions in the department of this ministry researching on better environments for offices or a better use of products and so on
So do you think in fact that technology can change our life and how?
To me design is an instrument to change the environment around people with the possibility of an improvement. Technology should be there to improve peoples lives and a better life does not mean that everybody gets rich but that they can see beautiful things and enjoy life
When you say 'design' do you think that the future of design, as you mean it, depends on technology. That is, that technology will have the solution for the design of future happiness?
Technology does not come first. People think how they want to live and then they can use technology to support this dream
From what you are saying, it seems that if people want something, then technology is there to give it to them. What happens really is that technology is producing new desires that people don't have. Technology develops very fast but do people grow as fast as to absorb it and make it their own?
You point out a very important issue. It is true, for instance that automobile companies in Japan

change their cult style every four or five years and thereby create a desire among consumers to buy another one Mercedes are keeping on the same style Of course they are changing too, but keeping their identity In this case I think that design is not controlling desires but it could play an important role in giving a direction to people s desires and attitudes I heard there was also a guideline issued to manufacturers not to change models so fast It was quite a direct guideline made by another department, not from here

In your opinion, after all we have said, does technology really solve problems or rather raise them?

It is like all coins, that have a head and a tail. It depends on human beings and their attitude to it.



Nobuyuki Idei
Director of board Corporate Communication Strategy Groups, Marketing Communication Strategy Group, Product Communication Strategy Group, Product & Engineering Coordination Group, Corporate Communication, Products Customer Satisfaction Group, Sony, Japan

If suddenly someone says technology, what do you think of and what image comes to your mind?

For Sony, of course, technology means electronics Electronics means creating a connection between remote or distant places, think of telephone or television It expands the activities of human beings, think of Jumbo jet or the Shinkansen. Recently I was amazed to find a telephone in an Air France cabin I could phone from the air to the conference room where I forgot something However, since I have been a witness to technological progress, I know this is a result of accumulated efforts Technology reminds me of a collective endeavor as well of a genius gleam

What is technology to you in respect to culture and do you think there is also a culture of technology?

Technology is not a culture itself, it is an instrument for culture. Sony has been producing things to realize what people dreamed about. An accumulated catalog of merchandise becomes a culture, take the example of the walkman. In Sony products, technology is hidden and the needs of people are reflected and satisfied.

Then, what is the definition of culture? Suppose there is none, but Sony has produced products in this way for the last 40 years One of our founders, Mr Ibuka was awarded a Japan Cultural Medal (by the ministry of Culture) and this doesn't happen to a person who made inexpensive radios So, I guess this is evidence that Japan recognized Sony's cultural contribution.

We have been proposing to people a new and different lifestyle with technology Therefore technology is not separable from culture Sony has some ideas first and then makes products We don't do a marketing research. If you care too much about what sold best last year or about what competitors produce, you will never get truly unique things For example, if there was no Sony, the Gulf war couldn't have been broadcasted that much. We have developed a system called ENG (Electronics News Gathering) which integrates camera and tape recorder and enables simultaneous diffusion of information to the whole world. This was a concept created by Sony and it made a revolutionary change in the broadcasting industry

In your country what emphasis do you put on technology development?

'Your country ? Which country are you talking about? As a business figure, my country is the world. OK, I compromise and let's say it is Japan Japan has been after peace industries, never after military industry ever since its constitution renounced wars Generally speaking, Japanese industries have invested a lot on consumer-oriented products Eventually now they spend money on environmental problems Twenty years ago Tokyo had very dirty air and filthy water, but now it has achieved a drastic improvement. On the other hand, in Europe, they still sell gasoline with lead. Basically Japan as a nation and Japanese industries are very much environmental conscious In this respect, there is a superb balance between people's desires and technology

Is there any government plan for financing specific types of research?

Sony's activities are completely independent from what Japanese government thinks But I suppose Japan is not interested in making an exquisite nuclear-tipped missile Generally Japan and Japanese companies will invest in environmental problems, electronics and informational business, hardware and software

Here are the results of a pool made among domestic manufacturers, relevant authorities, universities and governmental subsidised organizations on urgent needs for technological development, starting from the top 1 environment, 2 energy saving, 3 recycling resources, 4 high density of

cities, 5 resource development, 6 care for aged and handicapped, 7 medicine and health, 8 food, 9 labor, 10 biotechnology, 11 development of unused areas such as deserts and cold districts, 12 high speed transportation systems, etc
Now we are at a critical point as to whether we are going to make a better society or a violent one We must find a new paradigm and make a contribution for it.

How do you see technology developing in the future?
We have always produced products with flavour One of our managers of Columbia Pictures, Mr Peter Groover (I have to check the spelling) described this as 'Electronics, Entertainment and Emotion' I agree with him and after all Sony wants to be near people s excitements and impressions-tears and laughter We want to introduce things which can change the atmosphere in a room

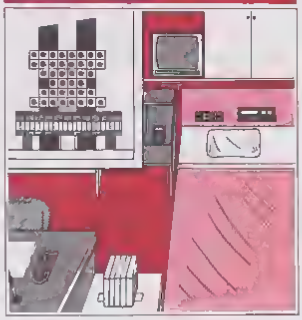
Sometimes technology appears to be a system to sell more technology a gadget in itself?
We agree that manufacturers are supplying an excessive amount of new models and this is producing unnecessary purchase among consumers This was true in the past, and when I say we have to find a new paradigm, I mean that this also needs to be changed.

How do you value technology and of course in respect to what?
Sony is not good at making high productivity products like computers Our products are not aimed at providing high speed calculation or business convenience They are always closer to human senses than to rationality Multi-media seems the most appropriate field for us

VIDEO BILLBOARDS ON WHEELS

What are the fields where research (theoretical and applied) is mostly concentrated? (specifically in one form—in general science if dealing with government)
Floppy disc memory capacity has the highest priority of research and development. This will allow a big encounter of business computer machinery and personal audio visual entertainment equipment We invest enormously in this area We have Sony Pictures to develop high quality contents but now hardware and softw are go together You cannot say which hand makes a sound when you clap both hands It is the interaction that matters. We don t call them hard-software any more it is *electronics*, entertainment and emotion
When you are able to introduce an epochmaking good idea this will start a new chain value and everybody will follow it You cannot start from coherency or standardized industrial mode with already existing products

CAPSULE OFFICE BUILDING

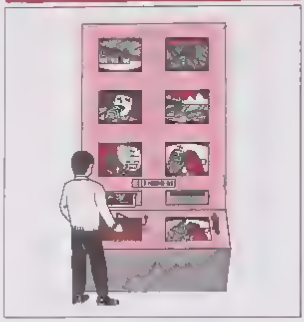


Do you see us going towards happiness or towards some kind of neutrality, accepting the situation as it is?
Answering you is beyond my capacity It depends very much on the point of view you take On the personal level, you can be broke and extremely happy only with your lover but this is not applicable to industries or nations Again the peaceful balance is very important, one nation cannot enjoy its prosperity while some others are suffering Don t we have to try our best to believe our effort will contribute? I must also say that I don t consider happiness so often. I don t know this very well. From the macroscopic point of view, I can t help feeling the world is definitely going towards violence and danger It seems time we stopped and thought.

In your opinion does technology really solve problems or raise them?
Technology both solves and raises problems I don't mean to avoid your question, but let's take the example of a piano It makes a sound when you simply touch it but it takes years and hard practice to play it and impress an audience I've been playing golf for 30 years and still I can t use a driver, such a simple tool, well enough The same can be said of machines No matter how easy a machine is to use, unless the user has a sensitivity

and affection for it, it is completely meaningless I know people complain they cannot work a VCR as it is too complicated, but then who would try to play the piano? I want to say 'No, kidding!" If he or she really needs to record something, it is very simple to learn A man is not that stupid. The situation gets twisted because some people speak of technology kind to people. I don t usually say this to journalists as I would get attacked, but you have to discriminate between the threat of technology and the fear caused by ignorance of it.

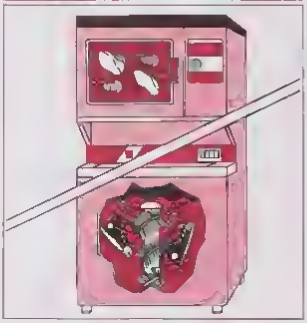
MESSAGE AND INFORMATION CENTERS



Tadamasa Kano
General Manager, Building Design Department, Takenaka Corporation

If suddenly someone says technology, what do you think of and what image comes to your mind?
Something at the front edge of the time Sometimes it supports 'beauty,' but it could accelerate 'ugliness" I always think of technology in relation to beauty and ugliness I started the campaign 'design and technology' among our architects Technology used to mean more effective engineering and equipment, but recently technology is more preoccupied with people not only anti-earthquake structural engineering, but also a visual impression of safety or stability Not only a perfect air-conditioning, but also a comfortable breeze or pleasant smell
What is technology to you in respect to culture? Do you think there is a culture of technology?
How do you define 'culture? Technology is a factor which can change culture and every age has its own technology I don't think technology itself forms any kind of culture Technology should be an invisible part or support of culture. It plays one role Too much emphasis on technology is very dangerous It is true that technology exposed itself too much recently But from 1990, there has been a very big shift from 'technology for technology s sake to technology for human beings" I believe the main catalysts of this change are the environmental problems of the Earth. We all had to face that nothing can be discussed without a global point of view High tele-communication networks enabled the simultaneous understanding of each other The political establishment drastically changed as Eastern Europe dissolved, while Western European countries try to unify An extremely high technological development only in a certain place doesn't work anymore It needs to be scattered and shared.
Is there any government plan about financing specf ic types of research?
Generally the government is supporting new materials, electronics, astronomy, ocean development, biotechnology, nuclear physics, fundamental particle physics, organic chemistry, etc The fund for research all over Japan is 2 99% of GNP, but the government finances only 0 5% (of GNP) while in the States a half of the fund is from the government It means that research in Japan is led by industries, not by the nation. For this reason most researches are applied ones and not basic theoretical ones The Japanese are very weak in this field and don't have enough stamina

COIN SNEAKER LAUNDRY



How do you see technology developing in the future?
If we take the example of intelligent buildings, they were a symbol of "high value added think ing They put together everything available, even excessive functions Eventually this caused a confusion among users and alienated people. In this sense, Sony's Walkmans had a very good foresight, they eliminated functions, did not add them. The mid-eighties represented the peak of added values' and in the late eighties we came to realize the situation But only the early nineties started movement and action As for construction engineering, time and cost efficiency will be questioned more and more And now coherency of technology is required. Some of those intelligent buildings had to be torn down because they could not replace a

broken electronic chip

What kind of advantage do you expect from technology?

The advantage of technology development should make people more lively and enable our planet to survive longer As an architect, I am after a gentle relationship between man and architecture

Sometimes technology appears to be only a system to sell more technology, a gadget itself

Naturally There is nothing wrong about this because the development of technology doesn't have a boundary itself and it progresses like a spiral

Do you see us going towards happiness or towards some kind of neutrality, accepting the situation as it is?

I don't think we are going towards happiness Technology confuses people

What relationship is there between the speed of development of technology and our capacity to absorb it and make it our own?

I feel the speed is getting slower How far you understand the contents of the black box (of technology) is very essential Otherwise mankind will be swallowed down and collapse by the end of this millennium The way to cope with it is an urgent task. There are many contradictions, but a balance among them is required.

In your opinion does technology really solve problems or raise them?

Yes, it solves problems But "how" is a big issue

HEAD COOLING PILLOWS

Hyogo Konagoya
Representative director, Yamagiwa Corporation, Japan

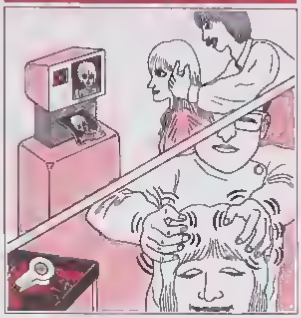
If suddenly someone says technology, what do you think of and what image comes to your mind?

I think of a mechanism, a machine, something very hard. An artificial brain may be subtle and complex but also for the moment understandable

What is technology to you in respect to culture?

When I see technology and the people who are supposed to use it I find that the gap between them is getting bigger and bigger Technology is creating new functions that people don't need and supplying things that culture never requested

HAIRSTYLE PRE IMAGING AND SCALP MASSAGES



Do you think there is also a culture of technology? Can you describe it, how does it look and why?

At the moment I do not see it. It should exist but I don't see it yet. Machines get more and more difficult to use, technology does not really think of people in the first place. For instance Japanese cars have so many buttons and most of them you never touch and it's the same with video You don't really use most of the functions but if you touch one you don't know you may ruin everything Machines should be more gentle and easy to use.

In your country what emphasis do you put on technology development, and can you give me some percentages, for instance, how much is invested in technology or in art or whatever?

Roughly Japanese companies invest 90% or more on technology and less than 10% on other fields, such as education, art, etc.

Sometimes technology appears to be only a system to sell more technology, a gadget itself? What do you think?

It is true that technology is creating too many accessories but on the other side if you see more convenient things people will love it and take it.

But sometimes man has other necessities For instance he may not want to see a machine at all or he may want it to be pink How much do you think technology takes into consideration the relationship with man and his psychological needs?

I'm not sure I understand your question However it reminds me of priorities Although a machine may be convenient and even making one psychologically happy, if this machine is destroying the ecological system it should not be used. To me the higher priority is Earth and the environment.

Other things like functions and cost-performances come much later

Do you think technology will be changing your life? How?

I m personally feeling used by technology I want consequently to draw back and start my own life again.

Do you see us going towards happiness or towards some kind of neutrality, accepting the situation as it is?

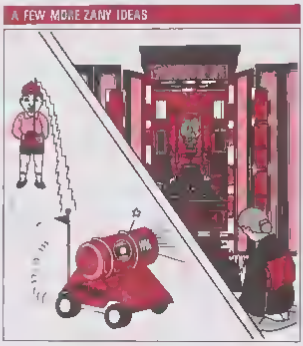
I feel we are at a turning point. It s time people working with technology started thinking and choosing which way to go

What relationship is there between the speed of development of technology, and our capacity to absorb it and make it our own?

A very unnatural balance at the moment.

In your opinion does technology really solve problems or raise them?

Technology may solve problems but it also raises them and I feel, as I said before, it is really time to think about how we want to use it. Technology goes very fast.



Hiroshi Ishibashi
Principal of Igura Institute and Founder of AXIS

If suddenly someone says technology, what do you think of and what image comes to your mind?

Technology is something soft which lives with people Technology might remind Westerners of industrialized or machine civilization which is hard cold and incomprehensible to human kind, but in Japan science and technology and even a recent development of so-called 'high technology' have been very well applied and quicky enjoyed by many people Historically it was technology that led our country to where we are, therefore there is little denial or refusal of it among Japanese

What kind of advantages do you expect from technology?

There is an unfavorable aspect of it as well as a positive one While technology offers convenience, safety and comfort, it creates some problems, such as environmental destruction But we have also arrived to the point that we developed some sort of technology to control the direction of technology In the last three or four years they started working on 'interwoven' relations of hardware and software It is meaningless and also impossible to discuss an instrument and a man separately

Sometimes technology appears to be only a system to sell more technology, a gadget itself?

Yes, technology can be a gadget to promote more technology For instance in video cameras they added unnecessary functions to sell more But manufacturers understood that they need to hide buttons (sign of technology) and show the minimum Also users get much more matured and intelligent dealing with technology and are able to define what they want to avoid and what they want to have

Do you think technology will be changing our life and how?

A new idea such as biotechnology cannot be discussed or judged by conventional or existing criteria. It involves all sorts of new problems, such as the ethics of life Technology always challenges us It we leave it there alone, it can threaten our species The fear of threat improves the situation, I think. I can't justify an internal organ transplant or cloning. However I believe mankind wants to survive as long as the earth exists We should not regret not having done what we could have done

Do you see us going towards happiness or towards some kind of neutrality?

I don't see any interrelation between happiness and technology They are independent from each other Technology can improve the standard of living, but this does not necessarily make a person "happy"

What relationship is there between the speed of development of technology and our capacity to absorb it?

The Japanese take technology for granted. They believe that whatever they can imagine, can be realized by technology They would not be surprised with its improvement because technology is so close and intimate to them.

In your opinion does technology really solve problems or raise them?

Technology gives us a new task to work on. I feel task and problem are different. Human history is made of a series of improvements which in turn created other problems

illustrations by Shack Mihara from *283 Useful Ideas from Japan* by Leonard Koren Courtesy Cronicle Books, San Francisco, California

USA ON TECHNOLOGY
they say

Dr Andrew Grove
President and C E O Intel Corp

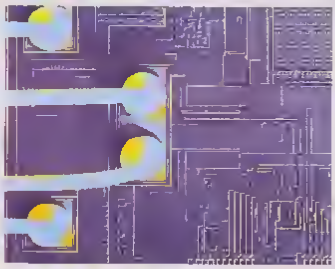
If suddenly someone says technology, what do you think of and what image comes to your mind?
Well, given my background, perhaps it s understandable it is silicons, transistors, photolithography These are the things dancing in front of my eyes
What is technology to you in respect to culture?
I'm not sure I understand that question.
Do you think there's a culture of technology or do you see technology separated from culture?
I think those two are mixed together or fused together in a peculiar way The internal workings of the framework of science and technology is based on a process of logic, deduction, empiricism, observation that has its own rules and its own integrity and its own beauty So it is a cultural framework. Science and technology are a cultural framework with its own right. Whether it is related to the other worlds or not I really have not thought of
Where is technology really aiming at?
Technology solves problems· you are sick, you take a medicine, you get well If you flew from Europe, a very sophisticated technology got you from there to here In my business a very sophisticated technology permits the performance of many millions of computations per second.
Now though there are also machines that offer lots of possibilities that people don't really need You say technology solves problems but who's asking the questions?
If you make machines that people don t need, people won t buy the machines and therefore you stop making those machines There are millions of people in the world and each makes decisions on what to spend the money that they earn with their own work The most meaningful determination of what technology they need or don t need is their own
There are for instance washing machines that have too many functions Nobody needs all those functions
Who are you to say they don't need those functions?
I'm a normal consumer
Well, then don t buy a machine You cannot tell me what machine I should buy

Operator programming computer controlled manufacturing equipment at Intel's Santa Clara facility

I want a machine and I cannot find a simpler one Many people complain of the same thing
If there are enough people who want a particular machine eventually somebody will make a business of making such a machine and selling it to them The productive world is a big democracy The purchaser decides what's needed or not and nobody, not you, not I, can dictate to them what they should. I know you don t agree but that's how I see it.
Wouldn't you agree that industry has been creating demands that are not needed?
Give me an example of this
There are many gadgets on the market that are just there to be sold
You have the right to buy or not to buy and I have the right to make up my mind as to how I spend my own money

test structure of integrated circuit. Courtesy Intel

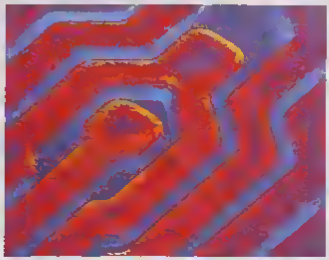
In your country what emphasis do you put on technology development?
I do not think you can generalize for America. America is candy companies and shoe companies and semiconductor companies
Is there any government plan about financing specific types of research?
In the last sixteen years the government has been very passive in the technological field. Its involvement in the development of technology has been very minimal Prior to that, in the 60s and 70s, the government was more involved in pushing technology of national security So I think that almost since the second world war the government hasn't been very involved in the working of commercial technology
What kind of research is most important now?
The trend of the day is to provide the consumers with mass produced items that work well at a low cost. Technological thrills are not in favor; technological basics at a good value are Winning products in our business are those that provide good functioning and capability at a low cost.
Is there any theoretical research going on?
There s a lot of advanced research in the general area where we work, on very fine lines very thin layers of insulators, very thin strips of metal For instance we have a lot of work going on in figuring how we can bring videoconferencing as a capability to personal computers so that they become a communication device You have to be very efficient on how to render the image of the other person as he moves
Is there a lot of emphasis put on software?
What I just described is largely a software issue The two things that determine performance in computing is a combination of software and silicon technology When those two get combined efficiently, very powerful and new devices can be invented.
What do you think is the very important function of technology for mankind?
To provide a better life, more efficient, more effective living
Who defines what is a better life?
The consumer We are back to it. The only thing you buy is something that makes your life better
Before people buy there must be people that invent and design
That s right. We were speaking about videoconferencing Someone designed that machine long before I knew that I wanted to buy it.
Do you think technology will be changing our life?
It has been changing our life forever I don t think it's going to be any different in the next five years than it was in the last five years Life is becoming faster paced, the choices in work, the choices in entertainment are growing With cable television, tv, instead of giving the consumer a choice of three, of four or twenty-five channels, will give a hundred channels Very high tech is involved in that. That s a consumer choice. Video conferencing speeds up business



Intel s 386 microprocessor Courtesy Intel

Do you believe technology will improve our life?
I already answered that question. At work it will make it faster, at home it will give more choices
Why is making it faster better?
Because if I m slower than the other one I m out of a job It s a competition If some can provide a service faster, a service that can satisfy the demand

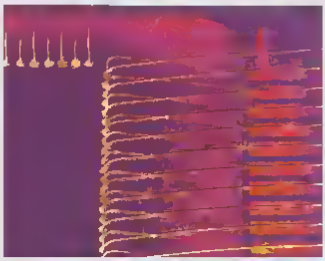
before you can figure it out, you're out of business
In your opinion does technology really solve problems or raise them?
Yes. Technology also provides problems but then the solution to these problems is going to be some other kind of technology
Do you think we can follow the pace of technology?
It's hard but then again when was it not hard?



polysilicon chevron coated with tungsten silicide. Courtesy Intel

Steve Jobs
CEO NeXT Inc

If suddenly someone says technology, what do you think of and what image comes to your mind?
Someone holding an electronic thing in his hand. Someone using a personal electronic device.
What is technology to you in respect to culture and do you think there's a culture of technology?
Technology is becoming a sort of background to our culture in the way automobiles used to be. Later cars became less visible. Technology is becoming a structure at the bottom of our culture. It supports our culture and slowly it is becoming invisible too.
Is there any government plan about specific types of research?
In the last twenty years the government was especially interested in military applications. Some interesting things have come out of it. But now things are changing. More research is going in other directions. For instance into transportation, like magnetic levitation trains, etc.
How do you see technology developing in the future?
I have no idea.
Sometimes technology appears to be only a system to sell more technology, a gadget itself?
In the short term it may be true. In the long term consumers are smart.
Really they have no choice.
Not true. Look at the digital audiotape recorder. The Japanese tried to push it like crazy and failed.
What is the image of technology? Who's designing the way it looks?
Fortunately companies are becoming aware of the importance of technology design and are hiring better people now than they used to.
I am referring to an image of technology conveyed for instance by certain contemporary architecture.
It is an ancient image of technology. Most architecture is far back in the dark ages as far as technology is concerned. This happens because it is a service industry, a customer job. Architects don't make enough money.
They could still design good buildings. Architecture has a strong symbolic value.
True, it is important but, as I was saying, architects don't make money and to learn about technology, you cannot do it alone. To learn things, to be updated, you need money, a company.
What relationship is there between the speed of development of technology and our capacity to absorb it and make it our own?
Western society is doing a pretty good job, and don't forget that death is a very good friend of technology. It gets rid of everyone who's afraid of it. Have you ever seen a young kid afraid of technology?
In your opinion does technology really solve problems or raise them?
Technology raises possibilities and we can make good products or bad ones.



Intel's 486 microprocessor. Courtesy Intel

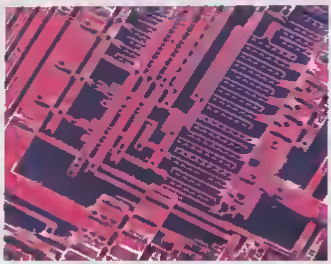
David Kelley
Tenured professor of engineering, Stanford University. President and CEO IDEO Product Development

If suddenly someone says technology, what do you think of and what image comes to your mind?
Integrated circuits. The fact that now you can put all the intelligence in a machine inside a little, tiny chip, and then the rest of the machine is totally independent.
Do you think there is a culture of technology?
There are some crazy people excited about technology the way children are excited about a toy. There is an age group, young boys who just can't get enough of it.
But you don't think it is a culture in itself?
Yeah, I think technology itself is a culture. In the

same way there are people who live for art, there are people who live for technology They want to know the latest, they want to own it.

Is there a plan to give a direction to technology? There are many possibilities but we don't know where we're heading?

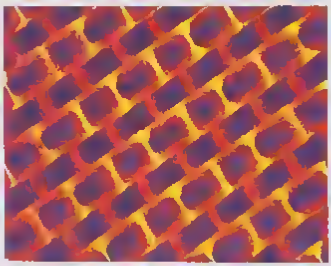
No That's the exciting part. It's all discovery People have goals Technology is made up of thousands of little technologies and each of those we want to explore But there's no plan It's too big for there to be a plan You couldn't control what will happen



rasable programmable logic device. Courtesy Intel

Don't you think this is dangerous?

It is absolutely dangerous but very exciting The thing that's exciting about it is what makes it dangerous But we can't help ourselves You know the instruments of war are exciting, everybody's excited by a big jet that moves very fast and flies low, etc I don't think it's good but we can't help ourselves, we have to develop it.



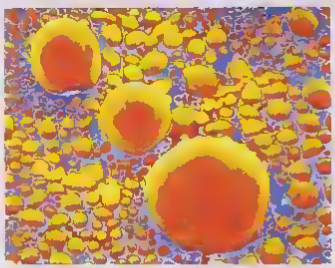
rasable programmable read only memory array. Courtesy Intel

Is there any government plan about financing specific types of research?

Actually I was invited by Bill Clinton to Little Rock, Arkansas, as a part of the transition team I think the administration wants to stimulate the economy by supporting certain technologies but the problem is, suppose one of the technologies we talk about was fiber optics, it would be nice if the government could guarantee that all points in the U S would be connected by fiber optics, it'd be very good for many companies The reason the government has a problem is, if they support fiber optics there are all these companies that are betting that fiber optics won't happen, so they will go under. Our government is not very good at taking sides on one group of specialists or the other, so generally they stay out of it. This government now wants to get involved with that but the problem is they hurt other groups if they help certain groups

How do you see technology developing in the future?

The only specific direction I see is that technology is being developed by little companies It used to be that technology was developed by big companies, companies that had so much money they could afford to do research. Now none of the big companies do that. The place where it happens are the little companies and it's a big change.



field of gold crystals. Courtesy Intel

What kind of advantages do you expect from technology development?

We've been through a period, just here, where people were just excited about getting the technology They didn't really care how easy it was to use or how well it filled to their life Now the human aspects become more important. People are more concerned about whether, for instance, a computer is really important to them The interaction with the machine is more important than the technology

Sometimes technology appears to be only a system to sell more technology, a gadget itself

I think that's what it is I think people developing technology are developing it because they want to see what it will do, they are not based on what other people need The Japanese were in the past particularly guilty of this, designing things just because it's possible

To sell them you mean, for profit?

Right, yes sure But now customers are more concerned about whether there's something of value to them

It is a very important change

Naturally very important. Now companies are hiring cognitive psychologists instead of electrical engineers, trying to understand what people are at. They are trying to understand people more. Matsushida just instructed their design people to interview a million homes. It must cost billions of dollars.

Is it a marketing research?

They call it life-style research. But, as we were saying before, they cannot ask people, people won't tell you what they want. In my opinion you can observe people and the way they react to things but you can't ask them what they want. They adapt too easily to what they already have. Customers don't know what they want but they'll show preferences if you show them alternatives.

How do you think technology will change our life?

Technology has already changed our life a lot. The biggest thing it has done in the past and it will do in the future is making the world one place. We are becoming all one culture. The United States of Europe? It may be a good economic decision but if it kills all cultures it's not a good thing.

Is there anybody to your knowledge trying to think where we are heading with all this?

Yes there are some, you know, enlightened philosophers and economists teaching at Stanford, very many people in many disciplines who are thinking. They are academic in their nature not tied to making money, they are interested in making the world a better place.

Are these people listened to by industry and people who run the business?

They are listened by other academics. They work in narrow fields. This is the way it happens. They can convince many other people. It's like a word of mouth. That's why they publish. Academics publish. And if you can get enough other academics interested in your point of view, pretty soon everybody sings the same song and then industry pays attention.

What relationship is there between the speed of development of technology and our capacity to absorb it?

At first there was such a big gap that we just filled it up with technology. Now we are saturated. Everybody has a telephone and they are not willing to throw away the existing telephone, even if the next telephone is a little bit better. If some really new advancement occurs which actually has substance, then they'll throw away the old one.

In your opinion does technology really solve problems or raise them?

I'm an engineer. Technology solves problems. Lots of technology also creates problems but it does ultimately good in my opinion. Even if the present step's not leading in the right direction we'll eventually get to it. Technology is the survival of the fittest. Technologies are actually used for survival and the stuff that's doing harm goes away, with the possible exception of the technology of war. Technology excercises the brain and gives people purpose things to do with their life. Things that are more exciting than doing what their parents did.

Lasers help humans perform manufacturing operations on an implant equipment in one of Intel's advanced [illegible] chip manufacturing [illegible]

XAVIER MARISCAL
El futuro che viene

ON TECNNOLOGY

I
Your Friend the Machine

This machine smokes tobacco for you
drinks alcohol, eats garbage, writes
insults farts watches the worst
television and does anything you
program it to do and it does it all for you

II
Fishing Rod for Talking

Latest technology with the help of the sun
and a fishing rod.
You can hold conversations
with the fish at the bottom of the sea

III
Humanised Public Transport

The ecological city bus
Doesn't belch exhaust
Makes no noise
Provides fresh fruit (figs)
Provides natural shade (the tree)
Perfumes naturally (fig)
Possibility of changing the tree
according to environmental conditions

IV
The Ecological Military

Ecological conversion of the army
Plans for replanting forests
Rebuilding beaches
Atmospheric investigations
Aerial spraying of the ozone layer
Oceans purified by the navy

V
The New Species

New animals, without danger of extinction
New animals, well adapted to the environment
Friendly and affectionate animals
Animals to keep you company that do anything
Animals with music and beautiful colors

VI
The House in the Clouds

A new system for building
houses in the sky with compacted clouds

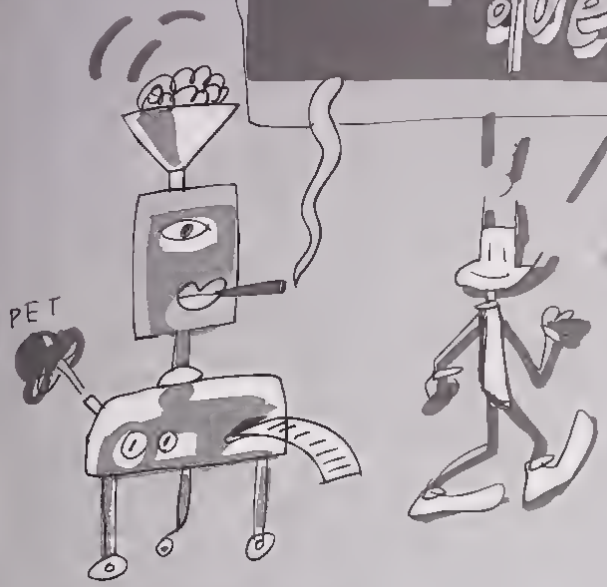
VII
The Happy Politician

Does not have an official car
Does not use bodyguards
Gets re-elected every year
After three years goes back to normal and
can no longer be a politician
Gets paid according to results

VIII
The Dream Machine

Free private television for the whole family
While one member of the family has a good dream
the others take advantage to watch it

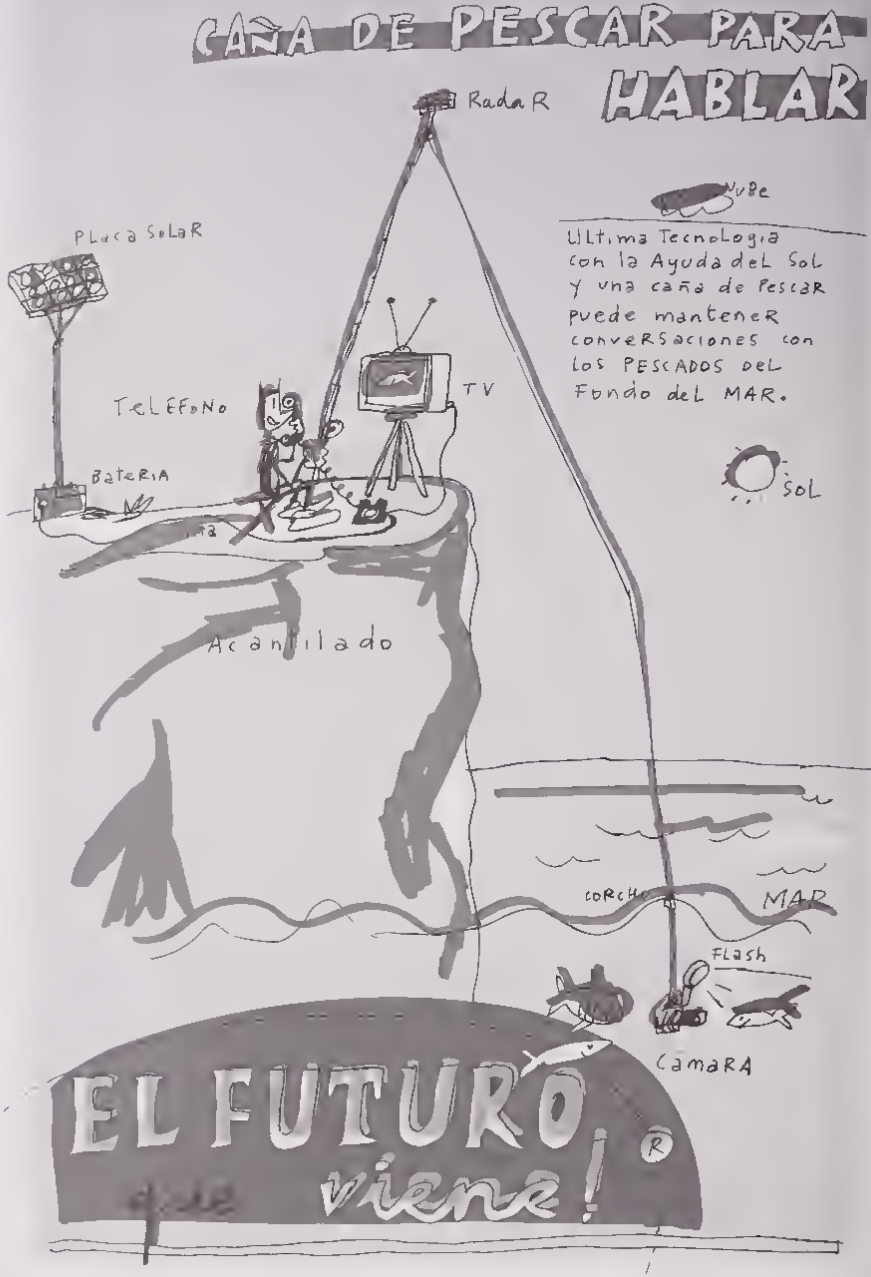
EL FUTURO, que viene



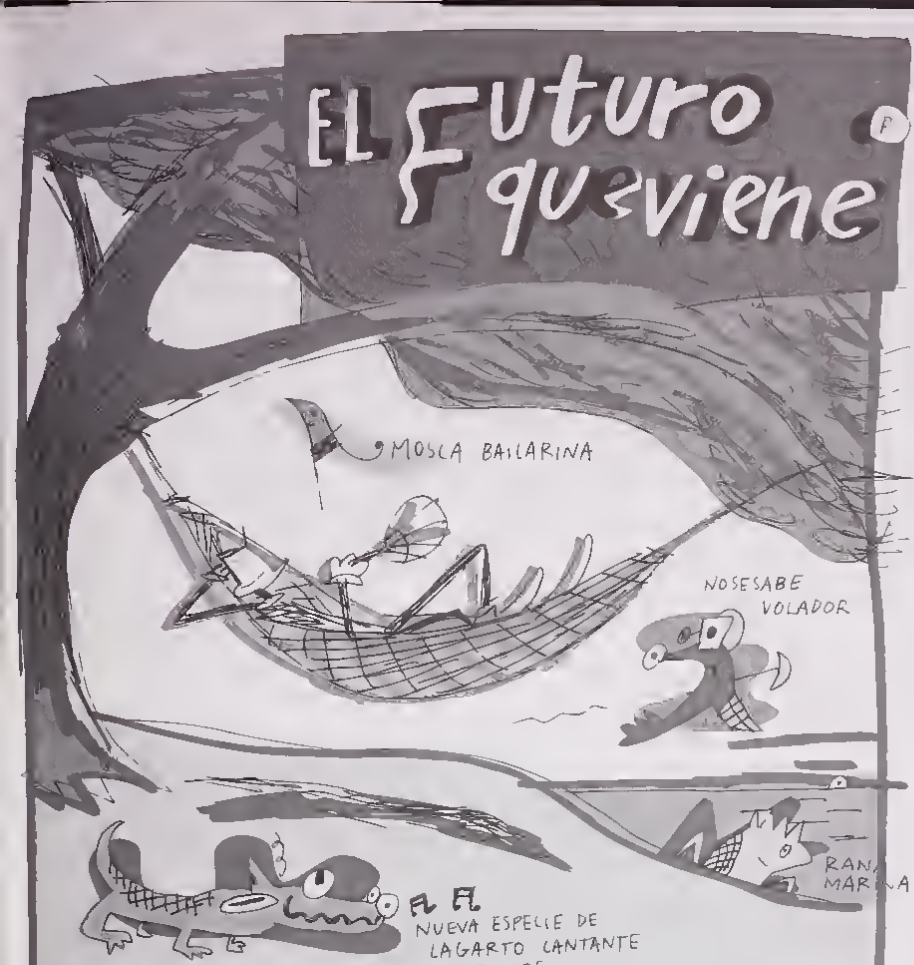
LA MAQUINA AMIGA

ESTA MAQUINA FUMA TABACO POR USTED
BEBE ALCOL, COME BASURA, ESCRIBE
INSULTOS, SE TIRA PEDOS, VE LA PEOR
TELEVISION Y TODO LO QUE TÚ LE
PROGRAMES Y TODO LO HACE POR TI

Marscal 1993


CAÑA DE PESCAR PARA HABLAR
Radar
Nube
Placa Solar
Ultima Tecnologia con la Ayuda del Sol y una caña de Pescar puede mantener conversaciones con los PESCADOS del Fondo del MAR.
Telefono
TV
Bateria
Sol
Acantilado
MAR
Flash
Camara
EL FUTURO viene!

El Futuro que viene



NUEVA ESPECIE DE LAGARTO CANTANTE DE BLUES

Las Nuevas Especies

Animales NUEVOS, sin peligro de Extinción
Animales NUEVOS Bien Adaptados al Medio
Animales Simpaticos y cariñosos
Animales de compañía que hacen cualquier cosa
Animales con Musica y Bellos colores

EL FUTURO QUE VIENE ®

LAURILLO

LA CASA EN LAS NUBES

Un Nuevo Sistema de construir CASAS en el cielo con NUBES COMPACTADAS

© Manual 1993

Transportes PUBLICOS humanizados

El AutoBus Ecológico
No tiRa Humo
No Hace Ruido
Da Fruta Fresca (Higos)
Da Sombra Natural (EL ArbOL)
PeRFume Natural (A Higo)
PosibiLiDAD de cambiaR de ÁRBol
segun estimatología Ambiental.

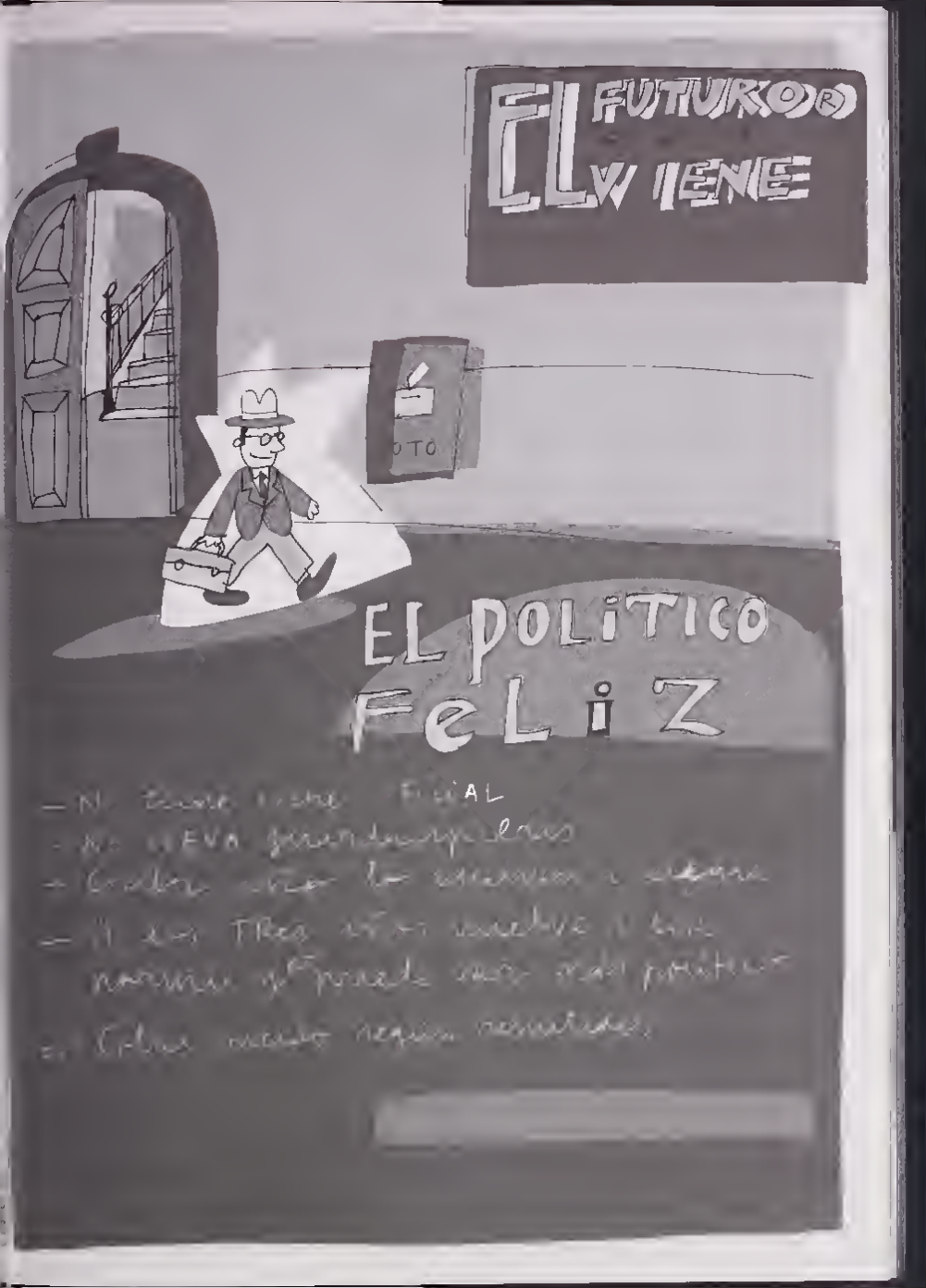
el futuro
QUE VIENE

EL EJERCITO ecologico

La RECONVERSION ECOLOGICA DEL EJERCITO

- PLANES DE RECOMPOSICION FORESTAL
- ARREGLOS DE PLAYAS
- INVESTIGACIONES ATMOSFERICAS
- ARREGOS AEREOS DE LA CAPA DE OZONO
- LA MARINA DEPURA EL AGUA DEL MAR

© Mancal 1993


EL FUTURO YA VIENE
EL POLITICO FELIZ

© Mariscal 1993

CITIZEN OFFICE
a project for Vitra

Ideas and Notes by
Andrea Branzi, Michele De Lucchi, Ettore Sottsass

Diagrams and coordination by James Irvine
Photographs by Saati Caleca

THE RESEARCH DIAGRAMS

The overriding thought which emerged during the discussion meetings was that of a 'Plural Approach' to the functional and non-functional themes of the working environment. This idea developed into the separation of the working environment into specific areas of research, and thereby proposing an un-totalitarian approach to the project. The method of division of the ambience into "fabrics', suggests, above all, a more humanistic point of departure.

Each diagram has been designed to represent a fabric, within which it is possible to reflect upon, and study products without the pressure of the 'total'. The mix of the resulting designs in different proportions or diverse equilibriums is aimed at creating a space, no longer total, but plural, responsive, flexible, humanistic and qualitatively superior. An environment capable of absorbing, changing and aging, of being content and yet, non-conformative, so as to inspire the individual to determine for themselves how they live, work relate and relax.

James Irvine

THE OFFICE - ANDREA BRANZI
FULVIO CARMAGNOLA
MICHELE DE LUCCHI
ROLF FEHLBAUM
ETTORE SOTTSASS
GIUSEPPE VARCHETTA

MAJOR THEMES

BR. ... the problem we had to deal with was how to understand not just transformations of object types like chairs or articulated tables, but whether there were trends, any broader historical and social transformations.

SO ... the difficult thing to understand is what human functions are. If taylorism has been defined and clear, ok so you've defined this awful thing. The taylorist theory and operating pattern of production relations in a factory or office were based on standards of functionality, efficiency, productivity, competitiveness. This is clear, but we have realised that it can no longer withstand the great transformation that has taken place, the communications, desires, possibilities, etc. What's on the other side?

GENERAL ECOLOGY
OF THE ARTIFICIAL UNIVERSE

BR. ... one can think of a general landscape ... offices usually have series-made products and a splash of green thrown in for good measure – with a children's portrait photo etc. But the question today isn't just this. It's how to get a sort of general ecology of artificial objects, of the artificial universe. So the mass produced object, the limited series object, the craftmade object, high tech, primitive technologies, the everlasting object, the throw-away object. In other words it's an absolutely new condition for design. People thought that the end of this century would bring an ideological completeness and that this ideological complexity would produce a human environment. So it's not only a question of having an Olivetti Synthesis and a photo portrait of a child on the desk.

HIERARCHICAL PYRAMIDS

SO. We discussed the actual situation and it came out that normally and still now in the office we have a hierarchical situation typical of the army. There is a General, then there are maybe two colonels or four, then there are captains... and blabla ... it's a pyramid, a very strict pyramid. That creates a very special state of tension.

REDUCED PERSONAL -
GENEROUS COMMUNAL

FE. ... one way of looking at the office would be. OK, we have very reduced personal spaces and have really sort of generous communal spaces. Make them really beautiful, have a beautiful cafeteria, have beautiful conference rooms and have personal stations relatively reduced. That is one tendency I think.

SO. Remember that to have a space that is yours is very important.

MEETING AND GROUP ACTIVITY

FE. Every office has the problem of not enough conference rooms, because the office is still a sort of yes, you have all these people working at the desk. Ah they have to have a conference. It seems exceptional but really a conference is the norm and work at the desk may be the exception.

DIVERSE PEOPLE / DIVERSE JOBS /
DIVERSE NEEDS

SO. Supposing you call me a kind of manager. So what do I do? I hardly ever stay seated, but fly around all over the place and then sit down without doing much. I mean what managers do in general, they drift around, they have larger armchairs, they just sit there and say, buy five thousand shares. A manager's work is like that. Miss Jones, get me a reservation. I'm leaving in a half hour', and off he goes. And the other one stays there eight hours a day, he hasn't got time. And I think all this stuff needs describing.

A SPACE FOR SOLITUDE

D.L. When Ettore spoke I took note of some words that in my opinion are important: to look for a space for solitude, to have a space. That is a big statement.

ROUTE
"CITIZ
D
VIEW
ARRIVAL
SHOWROOM
CONFERENCE
WELCOME
ARRIVAL
TEA + COFFEE
DISPOSAL
CLOAKROOM
ROUTE
PUBLIC
WASHROOMS
INTERNAL
PUBLIC
GARDEN
FITNESS
LUNCH
RESTAURANT
SNACK
OFFICE
MINI
MEETI
SECRETARY
COPY
GARDEN
WALKING
MEETING
BOSS
MEETING
AIR
WALKING
GARDEN

OFFICE
RAM
ITING
GOODBYES
LEAVING
WAITING
DEPARTURE
GARDEN
DISPOSAL
RECYCLE
DISPOSAL
ARRIVAL
RECYCLING
TION
ORMATION
TELECOM
TELEX
FAX
DELIVERY
OFFICE
TELECOM
DATA
PUBLISHING
DATA LINK
DATA
ARCHIVE
COMPUTER ROOM
OFFICE
COPY
COFFEE ZONE
ARCHIVE
STORAGE
JAMES IRVINE 93
ESCAPE

SO To have a space yes

FE Yes But then you also need a place to join You have to have both

BIG ROOMS, MEDIUM ROOMS OR SMALL ROOMS

DL Take the concept of working in one room alone or in a big room with a lot of people, an open space what is the kind of new sensibility managers appreciate most?

VAR Not open space, a mid situation.

DL An office with two or three people

VAR Yes three four five people in our marketing department where young people work together they prefer to stay three or four together They ask for space and not a lot of furniture We are oppressed by furniture.

ARTIFICIAL = ANOTHER NATURE

BR The artificial object has become a second nature in it self and it takes the shape of a mushroom, like an ectoplasm all around us

THE MOVABLE BOX OFFICE

FE ...with the box you have your territory

DL It s your box.

SO ...a movable space that s yours, not the space, the space within the box.

FE Yes, you can occupy any space and then it becomes your space.

SO That s the problem to have a personal space that s movable but always personal And then I imagine a big space with lots of plug in possibilities

THE TRANSIT OFFICE

SO ...what I think is that if a man becomes very very movable he should find out something that he carries by him self something very very small a chair a nice chair, and a small table, a very very movable thing to work.

DL the transit office in some way you have the beautiful solution for a beautiful transit office

FE It has a fascination, the transit office The problem is one of territory, because what you design there is your tool How do you define the territory?

THE INDIVIDUAL COULD CHOOSE WHAT HE LIKES

SO My idea is to let a person decide It could be possible to a certain degree Maybe you can have five types of chairs for a typist. Let s say I like the larger one because my ass is big Even the table, it would be easy to have five types of tables

PERMANENTLY DEDICATED PERSONAL SPACE IS OFTEN WASTED SPACE = CHANGING THE PROPORTIONS : REDUCED PERSONAL SPACE = ENLARGED LIVING AREA

VAR. In fact I realise that we have a lot of individual offices empty, always empty because people are abroad on a visit, training, on holiday and we are continuously looking for common space for meeting, for situations Perhaps, I think, one solution could be to have for each person very little space, personalized where people can find comfort, consolation, dream love soft situations and to have a lot of space for conversation for the organisation of conversation

FE That s the combi office approach

DL The idea is in any case that you need a space

VAR The living area.

SO Yes because when they go to the office they come home

FE Yes yes we never should forget that for many people the office not the home, is the most exciting time of life

THE DOMESTICATION OF THE OFFICE

BR Electronics allows for working times which have to do with new qualities not only with quantity The office starts looking like the house

SO You should not forget the big nostalgia about the house as a temple of private memories while the office has never been the temple of private memories We are now saying that maybe it may become a sort of a village where you have your private memories

THE NEW VILLAGES

BR the office pattern is increasingly that of a city..

SO Yes but it s a socially very compact city

BR ...of the village within an enclave within the metropolis

SO I would say, common life is getting more important, staying together because cities today don t allow people to stay together

DOMESTICITY

BR. Time was when design did its best to transform the whole of the office world. For eight years at Domus Academy they ve been talking exclusively about domesticity not to solve the problem of houses which no one has bothered about, but because domesticity is the reference model for postindustrial society because it s a place with a high polylogical polyproductive polytechnological complexity where everything is opposite to everything else. So now it s the office that has to look like the house this is really the slogan

THE RATIONAL HOMOGENEOUS HIERARCHY versus PERSONALISED DEREGULATION

BR. ...before the war and up till the 1960s offices were very repetitive with a hierarchy of materials representing a social hierarchy within on the basis of standards etc

FE A system

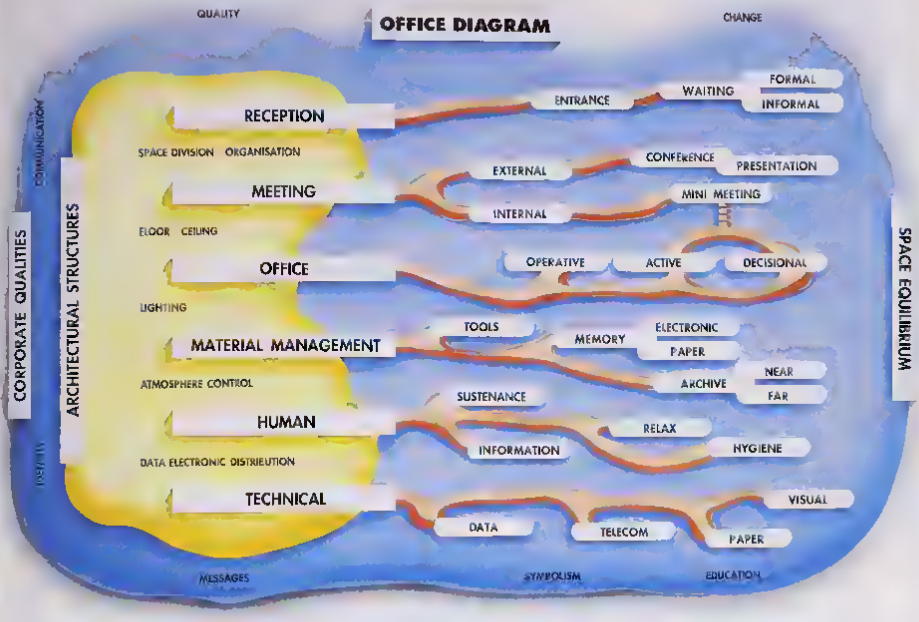
BR Yes a system in a very orderly, very homologous atmosphere etc. Today we have this other type of pattern that. Ettore and Michele for example have already worked on the hypothesis of having no more homologous systems but a general deregulation where each object is chosen with a different logic, so that a highly diversified and personalised landscape can be created.

TOTALITARIAN OFFICE SYSTEMS

DL. I designed three office systems for Olivetti Synthesis Every time they ask that they should not fit with the other otherwise they kill from a commercial point of view, their own product. So each system must be different and has to be alternative There is never the idea of continuity You cannot accept the idea that something new fits with something old.

AN IDYLLIC SPACE FOR THE ORGANISATION

CA If you ask me what the ideal space of organisation ought to be like, well maybe it s something we ve seen somewhere, that s a part of us, of our history, whereas the offices we see are always new because organisational culture is the culture of the modern, because you make a bad impression if you ve got old furniture that s falling apart.



The designer won t cut a poor figure if he keeps a pre Co lumbian statuette in his office.

THE FAKE ANTIQUE SYNDROME

FE In America, you see a lot now that the office tries to look old. I mean again in an artificial very unsophisticated way. You have old wood, the place tries to look like a lawyers office from around 1900. Also companies like Herman Miller do that. They have pieces they have fabrics

CA. like in a Philip Marlowe film

FE. In America you can go and order any style of environment for your home a southern style or a country style and in that sense there is more availability of styles than with us where the new is always modern. In America it is not that clear, the new is not necessarily modern.

CONCENTRATION

D L. These problems give rise to another problem the problem of mental concentration. If you want to concentrate yourself what do you do? You prefer to be in a large space and see what is happening or you prefer to stay in a corner alone and to think and not to be disturbed.

SO I don t think that there is one answer. There are days in which my mind is very brilliant, I can stand a big space. There are days in which I am very depressed. I have to be in a corner to be protected. I don t want space because it is very mysterious. There are days in which I am able to face this mysterious space. It depends, don t you think?

THE IDEA OF SPACE QUANTITY OF SPACE IS A RICH QUALITY

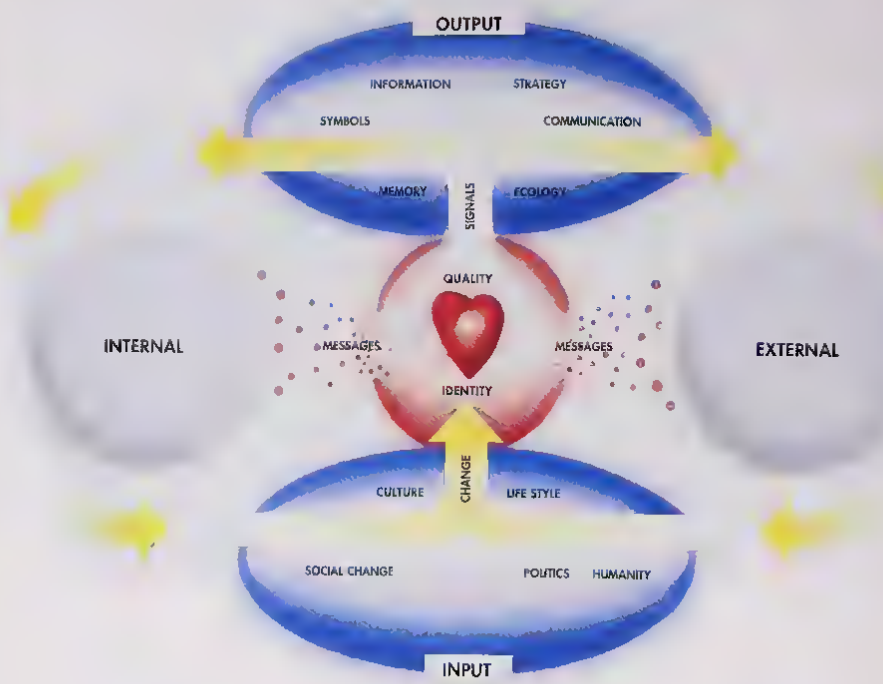
D L. Maybe the quantity of space you will have in the future will be the real status of the manager. People that have little space will be less important than people that have more space just in terms of air

SO. Yes, but I like very much the idea of having an immense space and then when you work you are alone with your station in the big space which is a very nice feeling, like I would like to sleep in an immense room and the bed is here. That is space

FE. That is why everybody wants to be close to the window. You have the whole space then

A LIST OF SPACES EACH ONE A SPECIFIC RESEARCH THE DYNAMIC RELATIONSHIP BETWEEN SPACES

SO. If you put down the catalogue of places I call it places different places different places with different functions but they are mostly places – then every place has its different problems light sound and blabla. This way first of all we have a general system of complications and it comes out that every place is different and every place has a different problem. And we can then get down to details and find some different solutions. I think. Because it is not only light and sound but for instance I was looking at this picture green for instance there are places that don t need green and there are other places that need green. There are places that need music and there are places that don t need music.



There are a lot of things that come into the specification of every place. And, as he was saying (Andrea) the interesting thing is how to build up a dynamic relationship between these places which is not a fixed hierarchy.

ARCHITECTURE IS THE POINT?

D L. In my opinion we have to introduce into this whole program the problem of architecture. I wonder if we can find new office furniture by starting from an architectural point of view.

BR. The problem will not be to design a new chair or desk.

CA. The problem is to give shape and meaning to a new space.

THE CRISIS OF RELATIONS BETWEEN ARCHITECTURE AND OBJECTS

BR. objects move in a direction and establish themselves as the most important part of an environment, self-sufficient more important than architecture. Architecture goes in a different direction because it has other problems and it's disappearing into the metropolis it has to defend its statutes it is the support for other communications. The interior doesn't match the exterior any more architecture is the subject of a terrible crisis.

FOUR QUALITIES FOR OBJECTS

1 Imagination

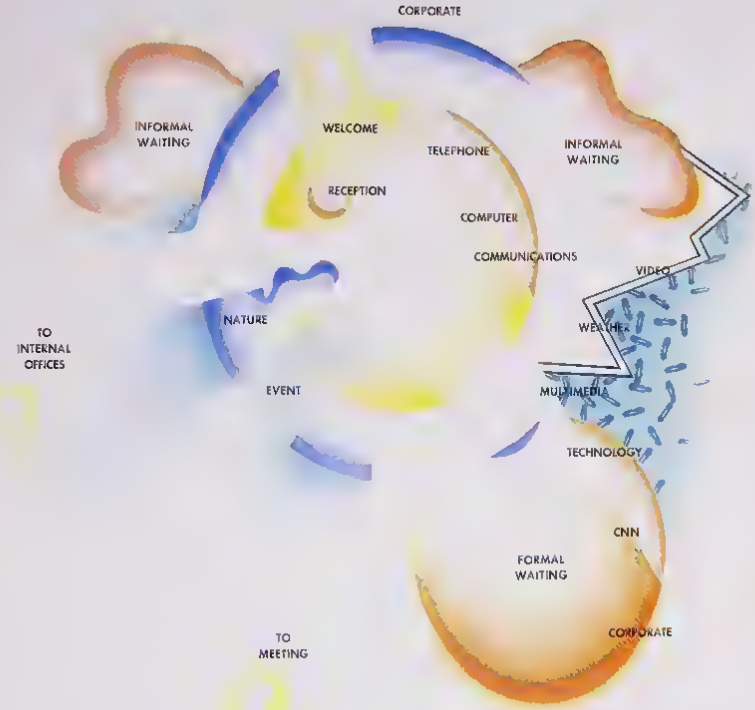
CA. The amount of language in objects or the amount of linguistic and sign redundancy is increasing.
Every object tends to become metaphor - where the object is an appendix to language, entering the design of communication and individual consumer demand.
So the consumer is encircled by a system of objects. The system of objects is a self-portrait of the consumer.

2 Aestheticization

CA. Another characteristic or dimension is what I have called the "aestheticization of objects." So you see aestheticization means the object is redundant compared to its function.

FE. Just to understand what you mean is it, sort of the watch that can do all the things that you never use but are there?

CA. Yes. Aestheticization means that the object says assumes meanings different to its functional one.



3. Dematerialization

CA A kind of withdrawal from matter and space is happening dematerialization The artifact there are two directions more line less matter And together, I believe there is also a specific withdrawal from the physical occupation of space As I see it this is a direction

4 Naturalisation of form

CA Naturalisation of forms refers less to clearly artificial objects than to objects that imitate complex curves or advanced surfaces as they say in CAD language

THE FLEXIBLE FURNITURE OFFICE

SO We were thinking that it would be possible to propose a space built with furniture, with moving things a very flexible space dividing the problems not getting one solution for everything. Every space has its own solutions Maybe to lower ceilings to change lights etc

SOFTWARE TO GIVE FREEDOM AND MORE POSSIBILITIES

FE The idea of the individualized office is a centre point of our thesis is that right?

SO Not the ideas of individualised office but the idea of freedom I mean after all this discussion the general idea is that the software should be as soft as possible To open possibilities, rather than looking for solutions That I think is very important

BAD BUILDINGS NEED GENERIC SYSTEMS

BR That is it becomes a place with a very weak identity a system of very generic objects Quality is produced by the environment and by use by a great freedom of use

CONCLUSIONS ABOUT THE PROJECT A MIXTURE OF METAPHORS

D L The idea of the office of the future has to be born exactly in this way not trying to find a totally new starting point because that does not exist This way we can use the concept of continuity with the past of domesticity and we can really think of the office that way like a film maker does It would be great if each project became a clear metaphor describing the project itself in the best way It has not to be the same metaphor for each of us for I there for Andrea and me

THE COMPANY - ANDREA BRANZI
FULVIO CARMAGNOLA
MICHELE DE LUCCHI
ROLF FEHLBAUM
ETTORE SOTTSASS
GIUSEPPE VARCHETTA

THE UNIVERSAL - PENSIERO DEBOLE - PRAGMATISM

CA. One of the principal concepts in contemporary philosophy is that the universal is the fruit of a communal construction by individuals - shared space and shared thinking are very similar. The idea follows that the universal is built and rebuilt from time to time. It does not exist as a given datum. The same is for space.

MATERIALISM AND THE NARCISSIST EGO

D.L. You mentioned the narcissist ego and the Oedipus ego. The other ego possible in the next future is:

SO. The sexual ego.

VAR. Analysts say that the new ego will be only narcissist.

D.L. We will not go back to the Oedipus ego?

VAR. No, the future trend says no.

SO. Because the father today is giving everything, so the child has not to kill his father: he has the car, he has the girl when he is 16 years old, he has hot water, he has food every day, he has everything, so why should he kill his father? He can only become narcissist, in this very materialistic society.

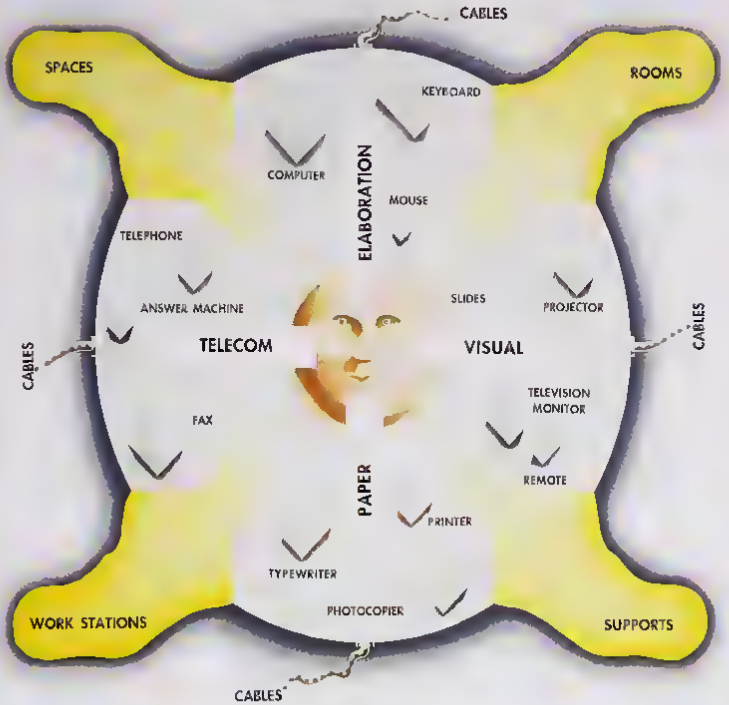
CONVERSATION FOR THE WEAK EGO

VAR. The ego identity of the contemporary subject is so weak that it only comes out through talk.

SO. I am very suspicious of all this philosophy, besides it's stated too precisely by him. I don't understand why the ego shouldn't be weak. The beauty of the ego is that it's weak. Why boost it? Because it has to serve industry. Otherwise industry hasn't got the people.

THE COMPANY PERFORMING A SOCIAL AND RELIGIOUS ROLE

FE. - the corporation: the company becomes more important again. Because with the breaking down of the big ideas—religious, political state: what else is there to bring people together? Before it was a political party, a social ath



letics club etc... but with television and all that, people are fragmented. The company is the only place of religion

SO Yes it is the only plaza.

FE ...you have the company mission as your bible.

A NEW FEUDALISM

FE The problem, the political problem can become a neo feudalism the company provides anything, love, meeting of people relaxation eating, you have a very nice cafeteria maybe a cultural program maybe of course, sports, swimming pool, tennis. And in the end the company becomes the universe. That is the danger of this total centralization of the company

THE RESISTANCE OF INDIVIDUALITY

DL The only thing really, if I'm right, is to concentrate not only on the ideal evolution of society but most of all on the ideal evolution of individual man

FE What's needed is resistance, even to organisation If it's too pretty, too nice-looking, if it's too harmonious that will be a problem. It's a bigger problem than if you have a big mess and clear exploitation

TOTALITARIANISM OF THE ENTERPRISE

FE and people fond of design went to Herman Miller's Now Steelcase says we've got everything So when you want a small sofa, you don't have to go to another company any more. It's totalitarianism they're looking for they want to cover the whole market.

SO But it's also overall quality the danger of this idea.

FE. Yes that is the danger Neofeudalism and all this totalitarianism

TOTAL QUALITY IS IT JUST A SWEETENER?

FE I'm very interested in this idea, which I haven't quite understood, this total quality It excites me not just for our design but in general because it's what we ourselves are looking for in an enterprise But I have never found, what you might call a clear ideology, because it's generally a bit of a sugary kind of ideology, of keeping company and doing a bit of PR and I loathe that because I prefer straight capitalism...

SO If the culture has to come out it comes out from industry not the sponsoring

TOTAL QUALITY IS AN IDEA AS POWERFUL AS TAYLORISM

VAR. You can start exactly from the idea of total quality. total quality management, philosophy and idea. Because I think, total quality could be considered a very strong idea which can rebuild the philosophy by which until now we have managed our business. In effect, to find another revolutionary idea as strong as that, you have to go back to taylorism. Taylorism changed our world. Now total quality, 80 years later, is a new idea with the same revolutionary strength

TOTAL QUALITY BORN AS AN INDUSTRIAL ANALYTICAL PROCESS

CA all total quality methodologies stem mainly from this idea. Descartes says if you have a complex whole break it down into simple parts until they can be identified clearly and distinctly. Clear means what is plainly visible to the eye. industrial quality at the beginning means to perfect control, reject in other words to throw away the things that don't fit into a standard derived from this operation

CRITICISING TOTAL QUALITY

BR. An attempt by industry is also emerging, to regain control of the social order so total quality tends.. to be put forward as a model of how society ought to function

SO I wouldn't like us to start designing offices on this idea of total quality because now we have the problem of secretaries arses and all you've said again is beside the point! In fact you said, ah the client is old hat. But once again the client is really the new thing!

TOTAL QUALITY HAS CHANGED FROM AN INDUSTRIAL CONCEPT INTO AN IDEOLOGY

BR. You have described the method and birth of total quality but after a while total quality becomes an ideology. It's no longer an industrial method, but is turning into a philosophy, like new taylorism..

CA. The stratery of total quality is aimed at product reliability, where the highest level of total quality is measured by the number of broken parts per million. In this sense it is a reliabilistic structural, functional strategy

QUESTIONING STRONG THOUGHTS

SO I hate this way of saying total quality. Because it is again a strong thought. it is not a weak thought. Total is a strong thought, and quality is another word for strong thought. I don't know anything which is total in the world and I don't know anything that has quality because quality is a historical result. I mean it doesn't exist.

BR. It's relative

SO It is very relative. That is again a new taylorism. a new law. That is good for industry. good for hiding problems and that is much worse. Industrial culture is not only producing systems, social systems or social relationships but it is producing what it calls "the weak ego" Industrial culture is producing ambitions and what I call desires. I mean if I want to have a Porsche, I don't sleep at night because I want a Porsche and try and kill somebody who has enough money in his pocket for me to buy the Porsche

TOTAL QUALITY - A JAPANESE REALITY TOTAL QUALITY AS A MARKETING STRATEGY

D.L. Total quality is a concept that has been often used in Japan when companies tried to find a kind of law that drives all the activities of the company. total quality tries to produce inside the company the maximum of friendly interrelation between employees and people of different hierarchical levels. And this produces not only a good image of the company but produces a new kind of atmosphere, full of value feeling of what you do. That is obviously increasing product efficiency and also the company image

TOTAL QUALITY AS A SERVICE

VAR. Total quality and the idea of service are the same thing.

SO But it is a total quality within industry not a social total quality

THE JAPANESE ARE DEVELOPING A NEW CONCEPT KANSEI

CA. The Japanese themselves who have reproduced the model of total quality are moving a step further. They're talking about "Kansei"
Kansei is the next step in quality. Kansei, two roots kan — sei. Kan is feeling, Wahrnehmung, sensibility perception. So they are the aspects of the sensorial, visible world, the one that can be seen and touched, the five senses. And "sei" is the characteristic of quality or realisation. So you see these two roots could mean that kansei might be.. perfection or

D.L. .. completeness

CA. Yes.. that's it. Kansei completion

THE NEXT STEP - PERFECTION IN SENSIBILITY

CA. ..completion, perfection. The next step is, reliability given for granted, the next step is perfection in sensibility

PERFECTION AS A CONTRADICTION

SO The biggest contradiction is the dream of perfection

NON CONFORMITY AND IMPERFECTION AS VIRTUES

BR. The Japanese turned the idea of total quality into a philosophy of society. the idea of kansei, of real perfection.. whereas, for example, all our efforts — and I say ours in the generational as well as professional sense — have been to see schizophrenia, weakness and imperfection as positive factors

SO That's right.

BR. This is just typical of the second modernity.. this business of seeing an imperfect system and therefore a continuously expanding, continuously perfectible and designable system

IRRATIONALITY versus RATIONALITY

SO Anyway, what total quality is trying to do is to rationalize the irrational of the new society

BR. That's right.

SO From my point of view. I think it is not the time to rationalize the irrational of the new society. it is time to leave the irrational alone and to live every day in this kind of irrationality

FE. But for a corporation this is impossible.. a corporation looks for rules because it is not the individual, it is many individuals, so it looks for ways to deal with this and this is the function of all ideologies.

THE TRICK OF TOTAL QUALITY

SO Total quality is a trick through which industry is building up the idea that the company finally, has a moral attitude an ethical attitude. in fact it is just a way to sell more things. The system inside the industry stays the same, it doesn't change

Andrea Branzi

In this exhibition I have tried to introduce the idea of a work place that changes shape according to a logic of opposites and contradictions, produced by existing times, ways and technologies
Today electronics and the development of communications allow us to work while driving a car, at the airport, in the street, or at home
Thus the office becomes a place of transit, part of a far-flung work system
The desk is no more a horizontal structure, but a passage, a 'threshold' the vertical desk to go in and out of freely in all directions
Private life and work intermingle more and more, and companies integrate with civil society
The work place is available at any hour of the day and night. People can eat and sleep there, or meet and work in groups
So if until yesterday it was (also) conceivable to work at home, today there is a well-grounded hypothesis that in the future one may (also) be able to live at the office. Working, eating, sleeping, meeting clients and friends: will this also be possible in the work place?
In the future the whole office scene will become highly ambiguous, hybrid, uncertain. Just as in the present metropolis, where we hardly know whether we are indoors or outdoors, at the bank, the airport or the hotel
The future will offer very free and functional sites, but with a 'low identity profile'

Andrea Branzi, Vitra Design Museum, Brief 1943

Michele De Lucchi

In my architecture and design studio in Milan which is located in an old silk warehouse, when we organise a big meeting or a party, we clear the large central room and stack the drawing-tables against the back wall But in the average office, with updated desks and sophisticated electric panels, this would not be possible

Office furniture systems have gotten so complex, due to the necessity for universal modularity or to wiring and technical equipment, that every little shift or change appears extremely difficult if not impossible

I have set myself the task of clearing my mind, to get rid of all the conceptual encrustments of competitive systems and all the prejudices arising from deep-rooted conventions

Citizen Office therefore has been an occasion to design an office with all the very latest services, whilst at the same time fostering the idea of a free and easy use of office equipment.

All of my furniture can be easily closed and moved, stacked or leaned against walls so as to free office rooms and minds

The most relevant element of a future office is space, which is getting smaller and smaller and ever more expensive

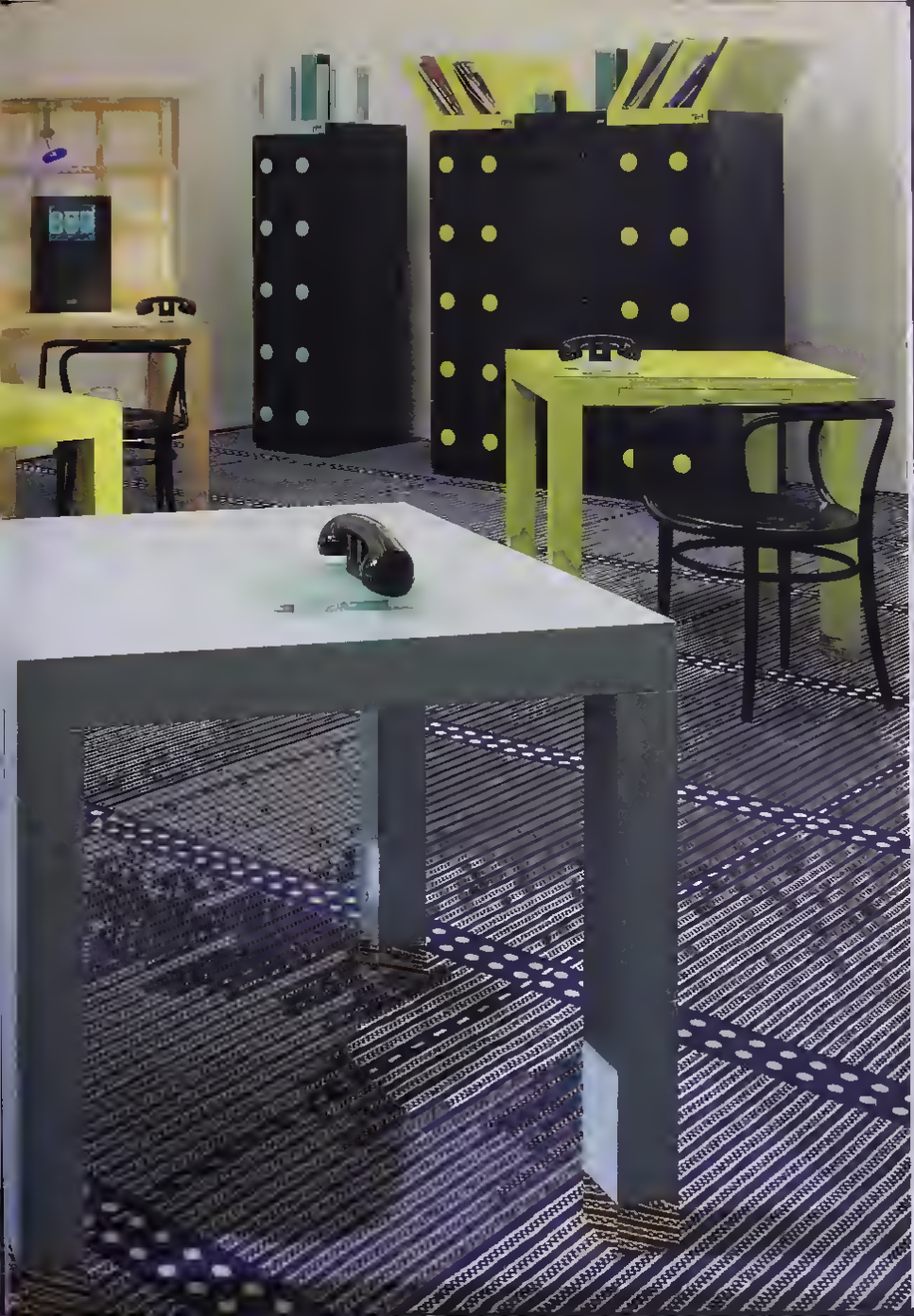
It is very important to find alternative uses, more flexible and easily removable furniture which communicate the idea of a happy, serene and productive work style

Michele De Lucchi with Geert Kester Vitra Design Museum Basel 1991

Ettore Sottsass

When I gaze at the contemporary office landscape and realise that what I call the "office style" exists I am always shocked by the presumption, the aggressiveness, and – let's face it – by the ridiculousness of the general scene.
I always seem to be witnessing some sort of military parade, like at West Point or the ex-Red Square, with straight flags, goose-stepping, chests out, tanks and armoured trucks, which never really succeed, and if they do seem to, it is only because they leave in their path tons of dead, wounded and wretched.
The presumption, (and with the presumption, the aggressiveness) is always the same: there is always someone who thinks there are megasolutions to mega-problems. There is always someone who has absolutely no doubt.
My notes (not solutions) are meant to sow doubt, to debunk the myth of certainty, to ridicule presumptions, to make people think a bit more – if possible – about the complications of contemporary existence and not about the triumphs of general happy business.
The Chinese, when they are very sad about some more or less complicated mystery, smile with embarrassment.

WASSER
KAFFEE

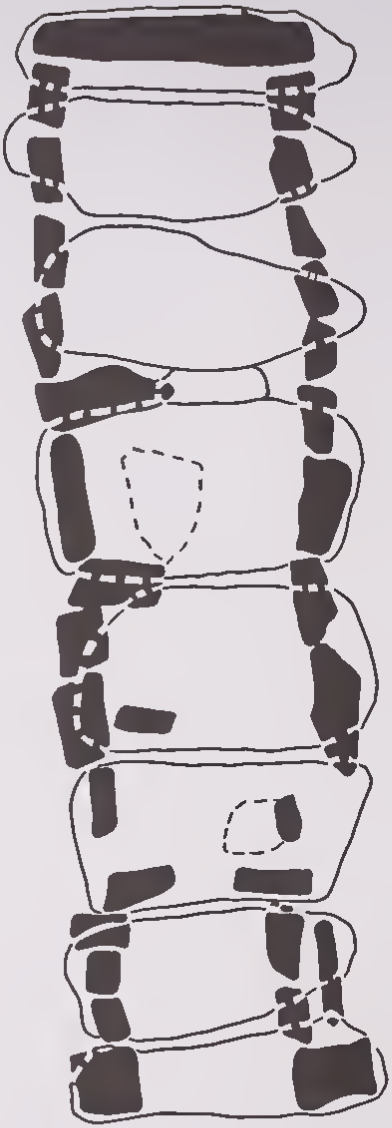


Prototypes of new technology for the office by Siemens. Art direction, Heibert H. Schultes. Carpets by Branzi, De Lucchi, Sottsass. Manufacturer, Vorwerk

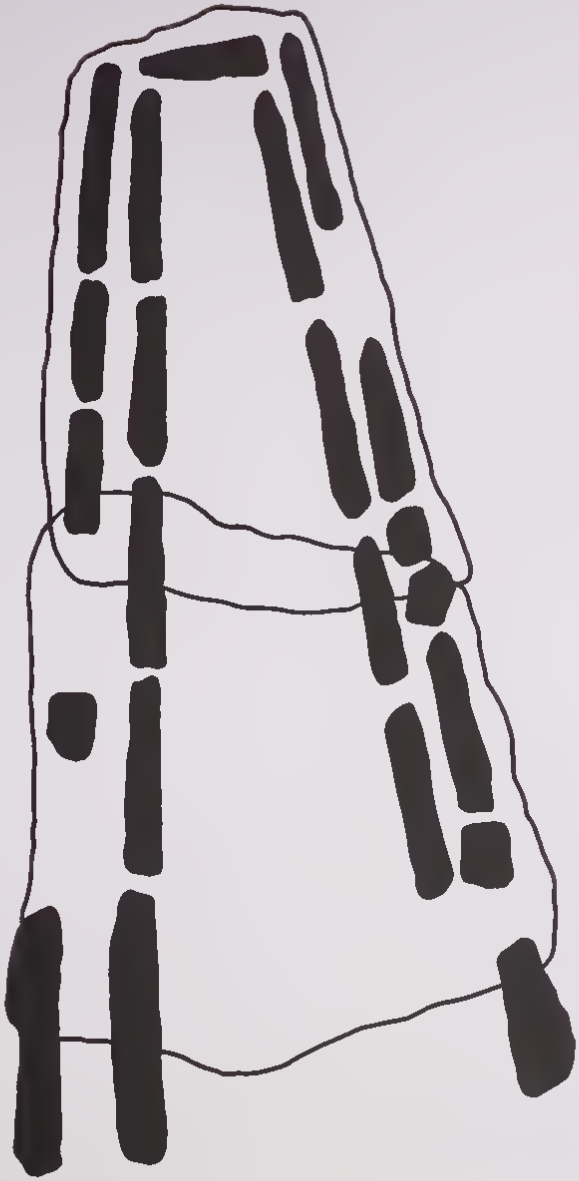
PLANS (8)

research by Beppe Cotugno and Giovannella Formica
photographs by Christina Bischofberger

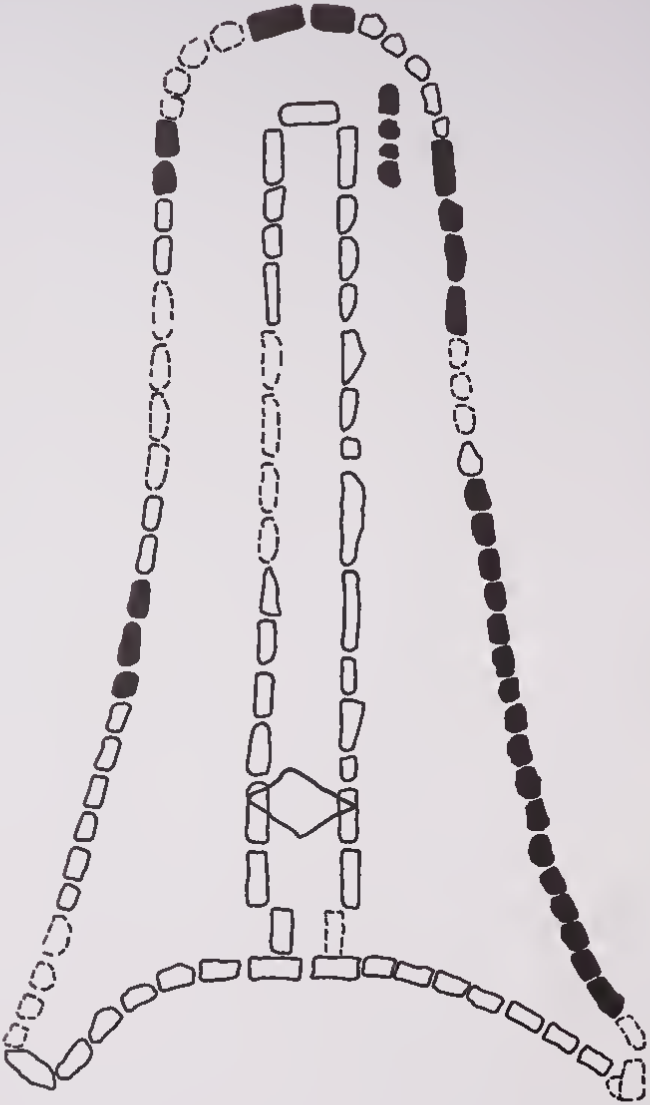
Grave Henstrup Denmark, Bronze Age



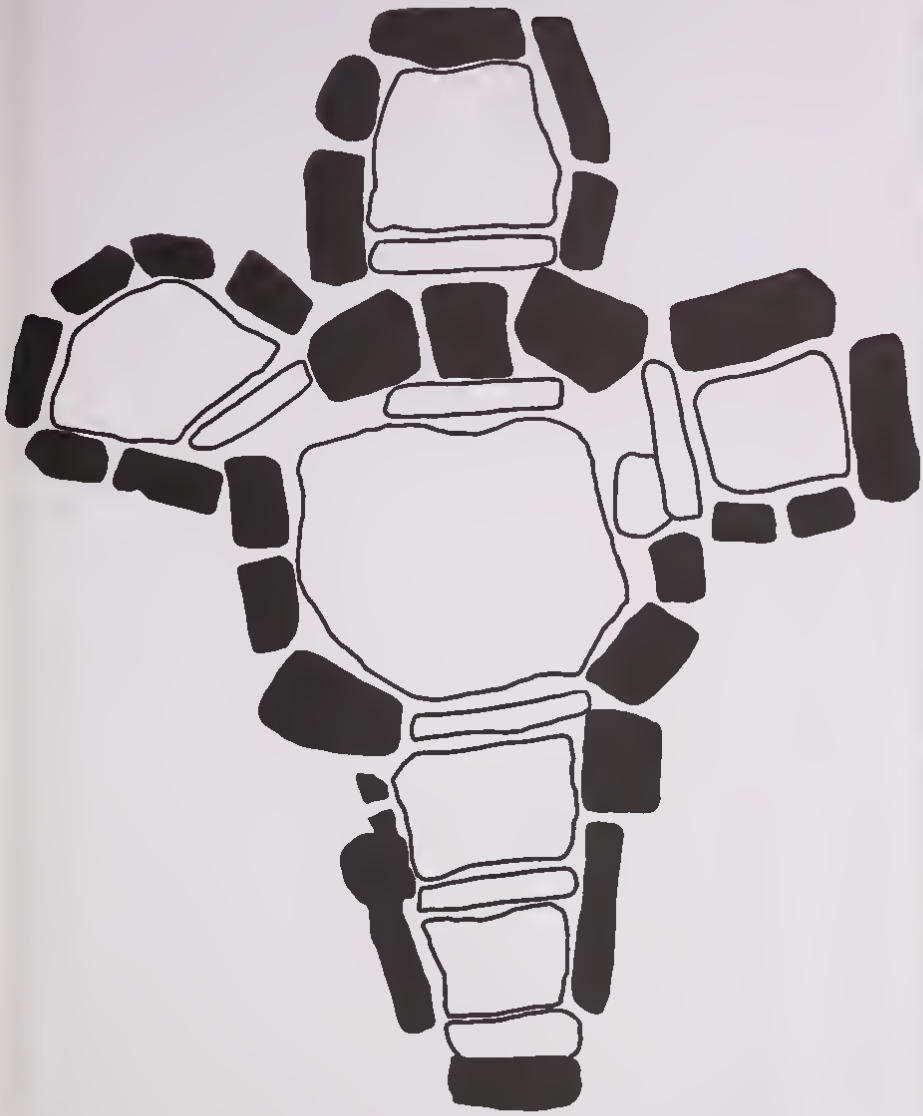
Gallery Grave, Esse, France Bronze Age



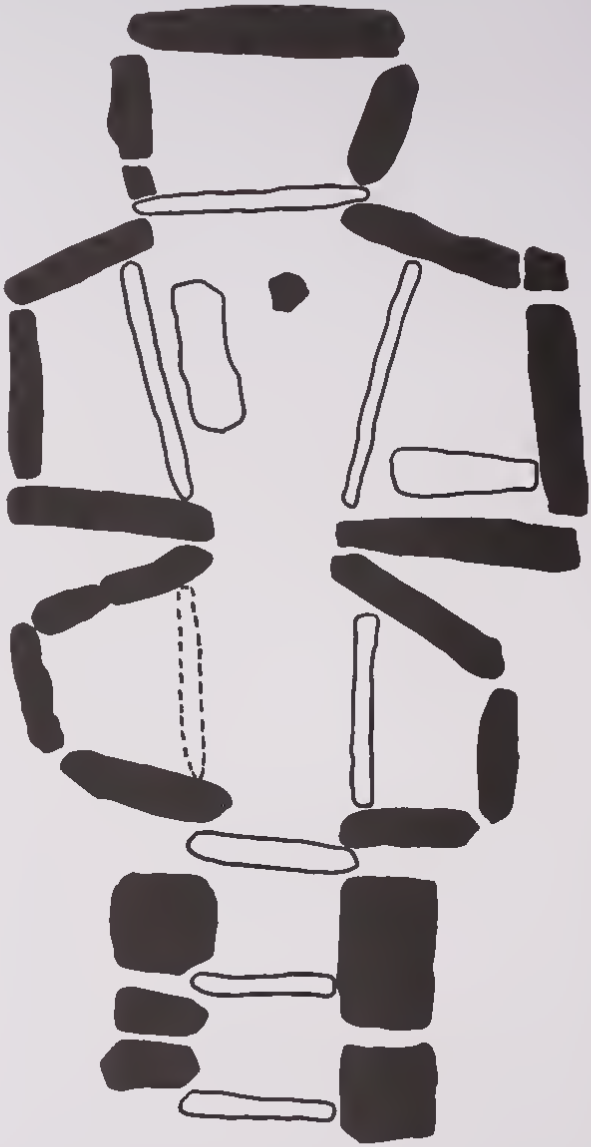
Wedge-shaped Gallery Grave Kenmare, Ireland Bronze Age



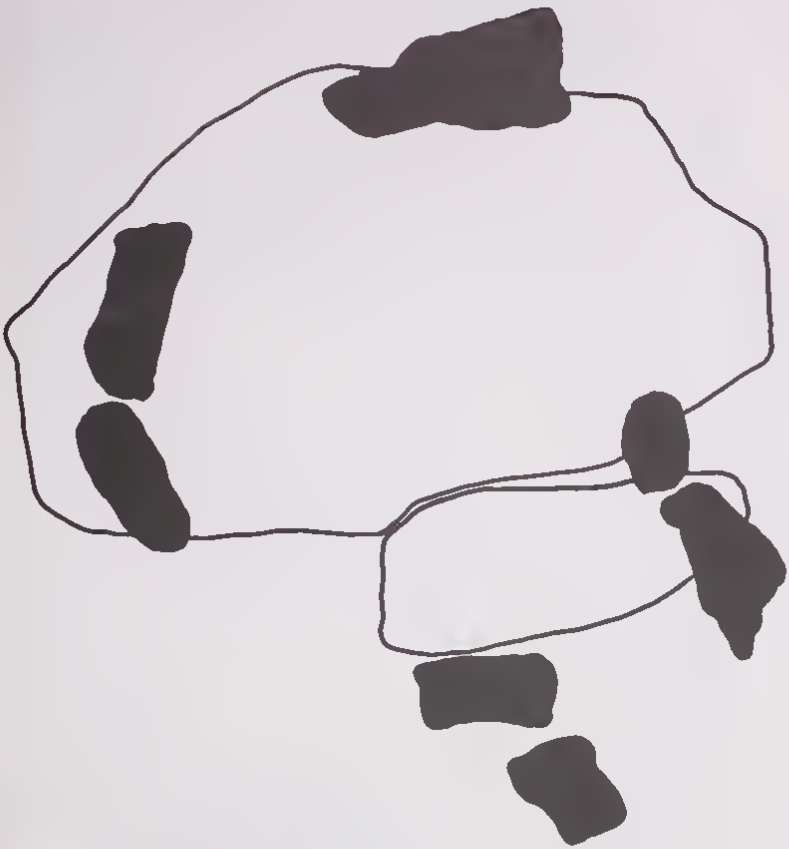
Giants Grave Sardinia Italy Bronze Age

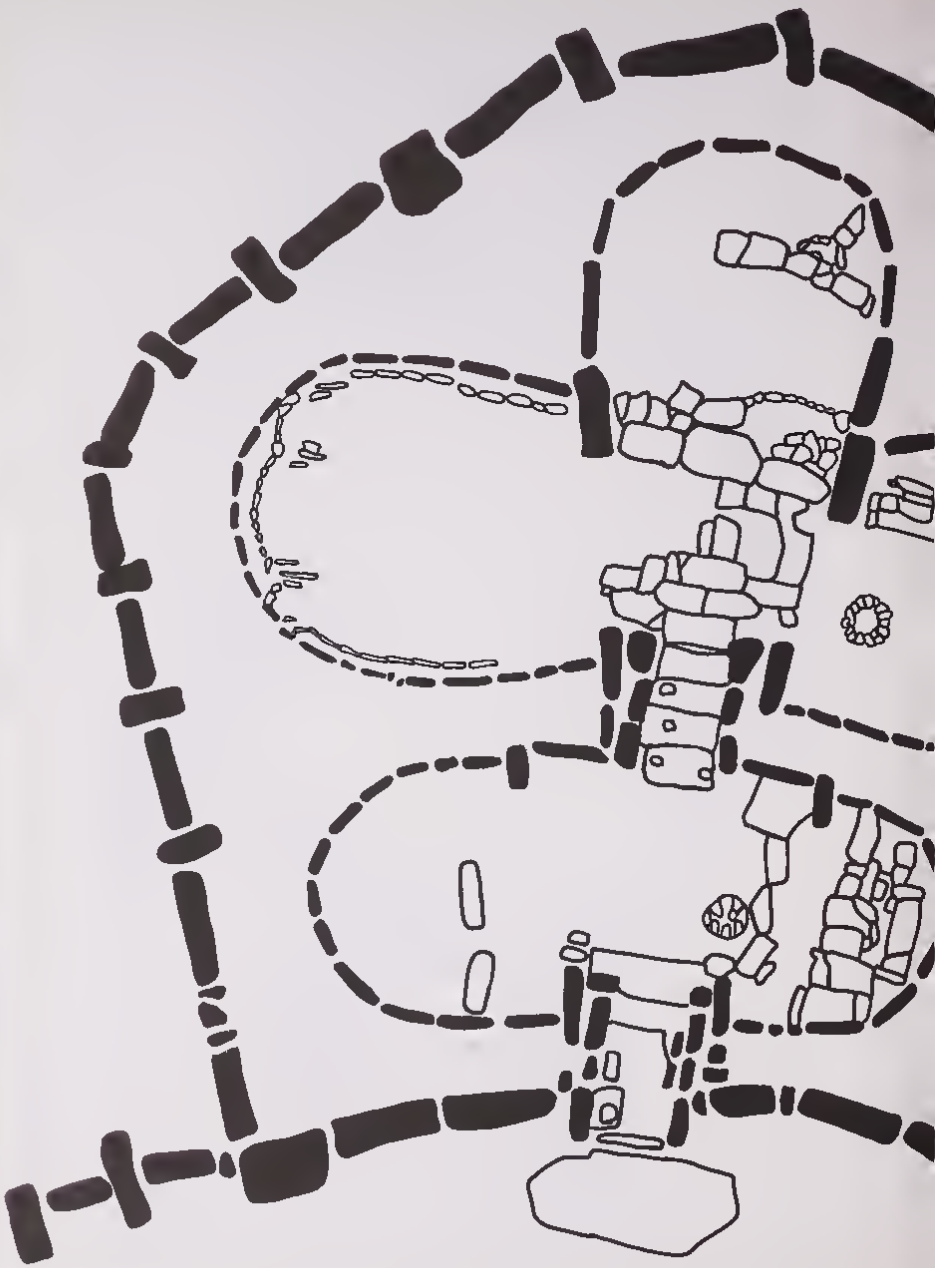


Gallery 4 raw: Carrowkeel, Ireland, Bronze Age

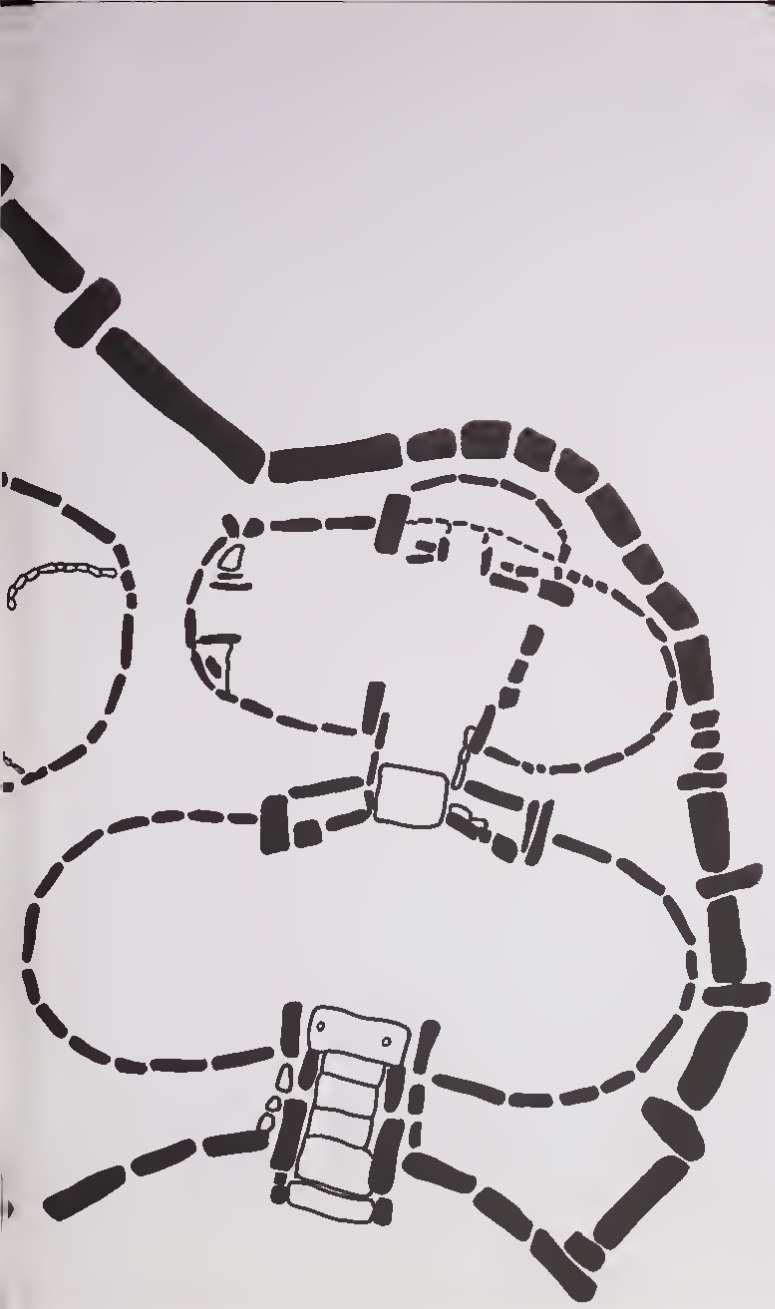


Gallery Grave, Carrowkeel, Ireland, Bronze Age





Megalithic Temple Gigantija, Gozo Bronze Age



SIEMENS

Kochen ist Her

Kochen konnte man sagen ist in erster Linie das Anrichten und Zubereiten von Speisen. Aber das klingt doch viel zu sehr nach Lexikon, und schmecken tut es schon mal gar nicht.

Oscar Wilde hingegen ist der Meinung. Kochen sei eine Kunst von der nichts Geringeres abhinge als unsere gesamte Kultur.

Diese Sichtweise sagt uns schon sehr viel mehr zu. Ja, mehr noch. Wir mochten dazu anregen, daß man doch viel öfter im Kreise von Freunden und Familie gemeinsam kochen und essen und trinken und sitzen und

Mehr Informationen beim Fachhandel oder beim Siemens Infoservice WMW 2017 D-8510 Fürth, Postfach 2348.

z und Verstand.

reden und genießen sollte (aus rein kulturellen Gründen selbstverständlich).

Denn letztendlich sind es die ganz einfachen und grundsätzlichen Dinge, die uns das Leben lebenswert machen.

Womit wir wieder bei Oscar Wilde angelangt wären, der seinem einfachen Geschmacke folgend, sich immer nur am Besten orientiert hat.

Was das Beste ist? Das überlassen wir völlig Ihnen.

Nur wenn es um Herde, Backofen, Kühlschränke oder ähnliches geht, konnten Sie uns ja mal fragen.

Da Nava la stampa corre sul filo del telefono.

(02) 26121410

NAVA web spa
Industria grafica

20126 Milano, via Martin Lutero 5
telefono 02 2570251
fax 02 2576205
isdn 02 26121410

ROMEO GIGLI

yamagiwa

Terrazzo 10 will be on sale
in Europe and in U.S.A. in December

TERRAZZO 10
Fall 1993
Surprise!

If you wish to subscribe to Terrazzo
or to receive back numbers
please apply to your nearest distributor
United States and Canada
Rizzoli International Publications Inc., 300 Park Av. South, New York, N.Y. 10010 tel. (212) 3873400 fax (212) 3873636
United Kingdom
Rizzoli International Publications inc., c/o Biblios Distribution Service Star Road, Partridge Green W. Sussex RH13 8 LD England
Italy, France and Spain
Logos Impex srl. Via Curtatona 5/F 41010 S. Damaso (Modena) tel. (059) 280264-280310, fax (059) 241687
Germany, Switzerland, Austria and Holland.
Rangert Verlag, Peter Paul Althaustrasse 9/F D 80805 Munich, tel./fax (089) 36190370
Japan
U.T.S. Ltd, Kenkyu sha building, 9 Kanda Surugadai 2 Chome Chiyoda Ku Tokyo tel. (03) 32914541 fax (03) 32933484
Hong Kong and Singapore
Sound Factory Rm. 112 1/F Universal Tower 16-28 Kin Wah St. North Point, H.K. tel. (852) 5714592 fax (852) 5247403

TERRAZZO 1
Fall 1988

MICHELE DE LUCCHI
new drawings
MASSIMO IOSA GHINI
things must pass
JOHNNY PIGOZZI
architecture from the sky
THE SECOND MODERNITY *by Andrea Branzi*
TRAVEL NOTES *by Ettore Sottsass*
on architecture
photographs by Ettore Sottsass
OUTSIDE THE AVANT GARDE
by Herbert Muschamp
MARMORA ROMANA *by Ramon Gnoli*
PLANS (1)
Sumer Egyptian Greek, Roman, Indian

TERRAZZO 2
Spring 1989

ANDREA BRANZI
Architecture in shadow
FRANK GEHRY Detailing *by Frank Gehry*
photographs by Santi Caleca
PAUL LUBOWICKI SUSAN LANIER projects
FRANCESCO CLEMENTE on architecture
ROBERT MAPPLETHORPE glass
DESIGN FOR HEROES
TRAVEL NOTES *by Ettore Sottsass*
on light
photographs by Ettore Sottsass
GREEK TEMPLES THE POLYCHROMY *by Joseph Rykwert*
FRAN LEBOWITZ ON ARCHITECTS *interview*
PLANS (2) Islamic the Middle Ages

TERRAZZO 3
Fall 1989

DAN FLAVIN
ETIENNE LOUIS BOULLEE
Homage to Etienne Louis Boullée *by Aldo Rossi*
A Newton
by Etienne Louis Boullée
ALDO ROSSI
Excerpts from A Scientific Autobiography *by Aldo Rossi*
The face of architecture *by Ettore Sottsass*
photographs by Santi Caleca
SHIRO KURAMATA
Purple shadows *by Andrea Branzi*
photographs by Kishin Shinoyama
ROBERTO BALDAZZINI LORENA CANOSSA
interiors
TRAVEL NOTES *by Ettore Sottsass*
on walls
photographs by Ettore Sottsass
INTERACTIVE DESIGN *by Francesco Carla*
on the design of video games
BEAUTY *by Herbert Muschamp*
PLANS (3) Renaissance Palladio
essay by Marco Frascari

TERRAZZO 4
Spring 1990

COLORS
a survey of thoughts and ideas on the subject of color
ETTORE SOTTSASS
Large medium and small size private houses
Letter *by Aldo Rossi*
photographs by Santi Caleca
TRAVEL NOTES *by Ettore Sottsass*
on architectural drawings
HELMUT NEWTON Cities and towns
TOMBSTONE
FOUR PIECES AND CODA ON THE IDEA OF BURIAL
by Francesco Pellizzi
photographs by Ettore Sottsass
CRAIG HODGETTS MING FUNG
You send me *by Herbert Muschamp*
CARLOS HIMENEZ *interview by Viola Marquez*
C.A.D. *by David Kelley*
VERY RARE AND IMPORTANT *by J.B. Archer*
PLANS (4) A baroque story *by Luigi Serafini*
MASSIMO GIACON FRESCOS 1988-1989
by Ambrogio Borsani
photographs by Santi Caleca

TERRAZZO 5
Fall 1990

DOLCE STIL NUOVO *by Andrea Branzi*
TOYO ITO
Let it breathe *by Toyo Ito*
JOSH SCHWEITZER *interview by Viola Marquez*
ITALIAN RADICAL ARCHITECTURE AND DESIGN
1966 1973
by Emilio Ambasz
ARCHIZOOM - 1989 GIANNI PETTENA
ETTORE SOTTSASS SUPERSTUDIO UFO ZIGGURAT

TERRAZZO 6
Spring/Summer 1991

240 pages of
photographic reportages on the world
largest metropolises
TRAVEL NOTES
by Ettore Sottsass on the nature of metropolises
HUMANISM VERSUS ENVIRONMENTALISM
by Andrea Branzi
PLANS (5) The Russian Suprematists

TERRAZZO 7
Spring 1992

ARATA ISOZAKI
Architecture with or without irony *by Arata Isozaki*
photographs by Yasuhiro Ishimoto
SITE
Green architecture *by James Wines*
TRAVEL NOTES *by Ettore Sottsass*
on kitchens
photographs by Ettore Sottsass
PLANS (6) African Compounds and Villages

TERRAZZO 8
Fall 1992

EMPTINESS *by Aldo Giorgini*
KISHIN SHINOYAMA Tokyo
STONES *photographs by Christina Buchsbaum*
POMPEI ERCOLANO OPLONTIS *photographs by Santi Caleca*
BEYOND WALLS *by Sergio Capelli and Patrizia Ranzo*
TRAVEL NOTES *by Ettore Sottsass on trains*
THE WAYSIDE ART OF INDIA *by Priya Mookerjee*
PLANS (7) XVIII Century Visionary Architecture

Printed and bound by Nava Web spa
in June 1993 Milan Italy